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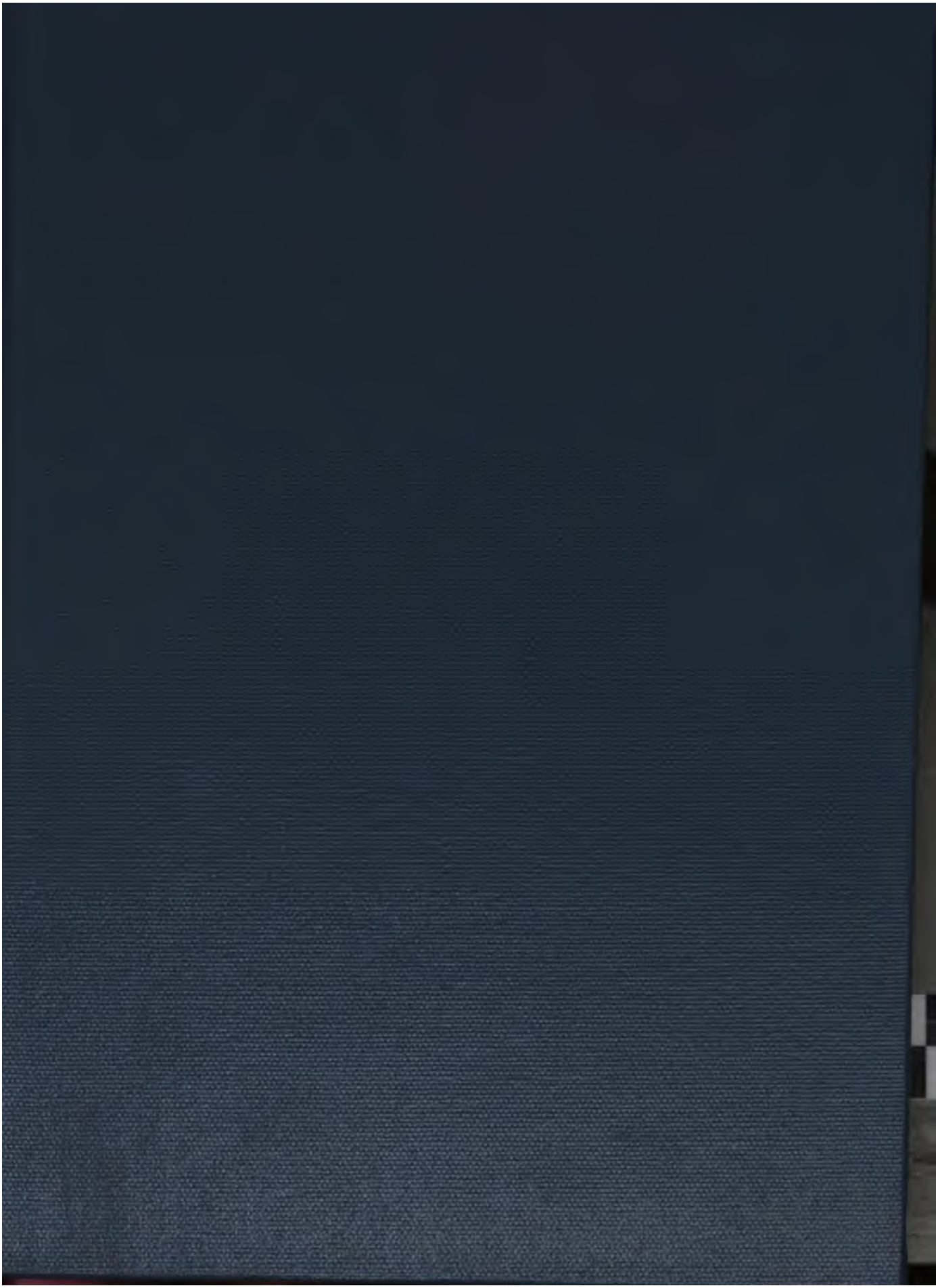
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HERALD OF HEALTH:

PAPERS ON

SANITARY & SOCIAL SCIENCE.

BY T. L. NICHOLS, M.D.

"HEALTH AND GOOD ESTATE OF BODY ARE ABOVE ALL GOLD, AND A STRONG BODY ABOVE INFINITE WEALTH."

THE

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PAPERS ON

SANITARY AND SOCIAL SCIENCE.

By T. L. NICHOLS, M.D.,

AUTHOR OF "HUMAN PHYSIOLOGY," "ESOTERIC ANTHROPOLOGY," "BEHAVIOUR," "HOW TO LIVE ON SIXPENCE A-DAY," "FORTY YEARS OF AMERICAN LIFE," ETC., ETC.

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INTRODUCTION.

IT was in 1870, the year of the Franco-German War, that I wrote one day, by a sudden inspiration, "HOW TO LIVE ON SIXPENCE A-DAY." I cannot now remember whether it was before or after the great battles around the city of Metz; though I remember the battles very well. I saw the late Emperor and his son pass up the nave of the Cathedral of Metz at 7 o'clock a.m. on the 14th of August, 1870. They left the city at noon; and before night there was in all the streets the noise of a great battle raging outside the walls and fortresses.

On the 16th, another great battle was fought. I saw only the smoke which rose from the field, and next day, standing outside the gates by the polite request of the military commandant, I saw five thousand wounded soldiers carried past me, into the hospitals of the virgin fortress.

After Sedan, and the fall of the Empire, I returned to Malvern, and wrote, or prepared for the press, the series of books advertised in the following pages. When they were written, stereotyped, and printed, they required to be made known. It is not enough that people should need instruction; they must know that they need it, and where it can be found. I spent much money in advertising my books, and found that the most effective way of making them known was by means of circulars fully explaining their character and objects. And the best form of circular, it seemed to me, was that of a newspaper—the least likely to be tossed aside; the most likely to be read. So, in February, 1875, I issued, in a large folio form, THE HERALD OF HEALTH. It doubled at once the sale of my books. It did so well, and was so much liked, that in July I printed it in a quarto of sixteen pages as the first number of a monthly periodical. Twelve numbers have been printed with a constantly increasing circulation; and now I have gathered the matter into this octavo form, in which I hope it will find a still greater number of readers.

The Second Volume, enlarged, and nearly uniform with this, begins with the number for July, 1876. The price is increased to threepence; post free, for the year, for 3s. 6d. I shall try to make it worth so much money to every reader, and to every advance annual subscriber I have promised to send my photograph carte. The efficient aid I have had in this, and in all my work, will, I trust, long be continued, and the serial story by Mrs. Nichols, begun in the July number, will not be the new volume's least attractive feature.

The name "HERALD OF HEALTH" is borrowed from an excellent monthly, published by Dr. Holbrook, of New York, a worthy worker in the same good cause.

I publish this volume of the "HERALD OF HEALTH" for several good and sufficient reasons. It contains many special articles which every body ought to read. It treats of matters on which the great masses of the English speaking people all over the world need to be instructed. It carries a knowledge of books of Sanitary

Science which may be the means of giving health and prolonged life to millions of this and coming generations.

Having devoted myself to this work of giving public instruction in the laws of health for many years on both sides of the Atlantic, I can see nothing more useful to do than to go on with it to the end. In doing this I need all the help I can get. Only by the hearty co-operation of all who see the need of Sanitary Education can such a work be done.

I hope, moreover, that the readers of this volume will become subscribers to the next, and go on, month after month, with ever increasing interest in the great work of SANITARY REFORM, which must be the basis of that SOCIAL REFORM to which we all look forward as the condition of the prosperity and happiness of humanity.

T. L. NICHOLS.

429 OXFORD STREET, LONDON, W., *May, 1877.*

THE HERALD OF HEALTH.

By T. L. NICHOLS, M.D

ILLUSTRATIONS OF NATURAL THEOLOGY.



Bird of Paradise.

Nature is an open book in which we can all read lessons of the power, the wisdom, and the goodness of the Creator of the universe. A book full of marvels and mysteries, no doubt, of myriads of things now incomprehensible to us; but full of delight, full of beauty, full of use, full of evidences of intelligence, design, adaptation of means to ends, and proofs of infinite wisdom joined to infinite power.

Some of our "Scientists" tell us that an ape, improved by circumstances, and developed by natural selection and the survival of the fittest, invented the telescope and microscope, measures the distance and calculates the weight of the heavenly bodies, and opens up to us the wonders of the world of insects and infusoria.

Mr. Darwin imagines that the beauty of animals, birds and insects, gives them advantages in the struggle of life, by what he calls sexual selection. Were this the case, the beautiful creatures would be the most prolific and abundant. The fact is notably the reverse. Of what use, in this way, is its beauty to this Bird of Paradise? He rejoices in it, no doubt, his fellows envy and his mates admire; but where are its advantages to the species? Those glorious plumes impede its flight. They grow out of its shoulder, and spread beyond the stretch of its extended wings and tail. The bird spends hours every day in dressing and displaying her exquisite plumage, and is probably as happy as a belle in her first season, or a bride over her trousseau; but the utility of the fine feathers of this New Guinea crow is by no means evident. Our dingy sparrows multiply more rapidly. *(See illustration on next page.)*

And how can we apply this philosophy to the wonderful organs and transformations of the insect world? In "Human Physiology" is a picture of gnats, or moschetoes, in their various stages. On a leaf in the background is a female laying a raft of eggs glued together on the surface of a stagnant pool. When the raft, or little boat, is formed, it is provided with a cable, and anchored to the bottom, so that the wind cannot drive it on shore. The heat of the sun soon hatches the eggs, and the grubs swim about, active and ferocious, gorging themselves on infusoria. When a grub

has eaten enough, he hangs himself up to the surface by his tail, through which he breathes, and takes his siesta. After a time, the insect is formed within the body of this grub. The pupa rises to the surface like a boat, and out comes the fully-formed moscheto, with his long wings, which move so rapidly as to make a shrill trumpet note as he flies, with fourteen-jointed antennæ, feathery in the male, hairy in the female, and armed with a long slender proboscis, with sharp lancets for piercing the skin, glands secreting poison to inject into the wound, and a hollow tube, with lips, for sucking the blood which the irritation of the poison has brought to the puncture. And all this skill, and contrivance, and wonderful machinery, Mr. Darwin and Professor Huxley inform us, is merely the result of accidental variations. You have only to wait long enough, and any atom of matter, or drop of protoplasm, may become a moscheto, or honey bee, or bird of paradise; a whale, an elephant, a Homer, a Shakespeare, a Darwin, or a Huxley. Truly nature is wonderful; but the most wonderful thing in it is the credulity of men who have no faith.



Fore Foot of the Beaver.

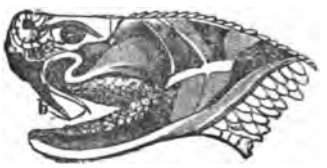
The whole animal world is full of design and adaptation, as of the camel to the needs of man in traversing deserts. He has a foot expressly formed for flinty rocks or shifting sands; his hump is a store of nutriment on which he lives for weeks when deprived of other food; and in cells, provided for the purpose, he lays up a stock of water.



Hind Foot of the Beaver.

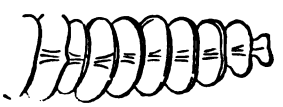
So the beaver is accurately fitted for his acquatic life and pursuits. He is a strong, rapid swimmer, and here is his hinder foot, webbed like a duck's. He is a builder of dams and dwellings, and here is his fore foot, with its long, tapering, artistic fingers. He is a mason, working in mortar, and is provided with a scaley, trowel-like tail.

Venomous insects and reptiles have very curious adaptations of machinery, seen in the lancets and poison injectors of the moscheto, and more distinctly in the sting and poison-secreting glands of the bee. But take the two extremities of a rattlesnake. In its head is a gland which has the power of making from its blood a poison so virulent, that an atom of it injected into the veins of an animal will quickly destroy its life. Connected with this gland, by a tube, is a long, sharp tooth, commonly lying in a sheath in the



Head of the Rattlesnake Dissected.

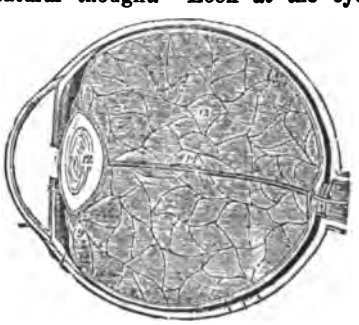
upper jaw. When the snake wishes to inflict its venom upon man or beast, this tooth starts out, penetrates the foe, and the poison is pressed through it. But the rattlesnake never strikes until he has warned the intruder with a sound of dread made by some dry joints of its tail, which rattle like peas in a dried bladder.



Rattle of the Rattlesnake.

The whole realm of nature, and especially the whole world of life, vegetable and animal, is full of these astonishing contrivances. Every part of Human Physiology is replete with instruction.

The eye is one of the most admirable as well as beautiful organs—artificial, so to speak; ingenious; like an instrument constructed by the most accomplished mechanism; but far, far exceeding all conceptions of human skill. We heard a lecturer on physiology say once to his audience—"And now, ladies and gentlemen, I will show you a very ingenious thing on the part of the Deity!" It was a queer expression, but a very natural thought. Look at the eye. A



Section of the Eye.

dark chamber—a camera obscura. At its back a white curtain to receive the picture; a round opening in front, growing larger or smaller with every variation of light. A cloud comes over the sun, and millions of pupils in the eyes of men and animals enlarge; the sun blazes out, and they all contract. And behind the hole, a perfect double convex lens, which is moved backward and forward to focus objects far and near, and photograph the visible universe. To move

this instrument in its socket, are muscles which draw it up, down, right and left, and one long muscle runs through a loop or pulley to twist it upward, while a shorter one gives it a similar twist below. The upper muscle in the cut is as important as any, for it raises the curtain—the upper eyelid. All this apparatus for two eyes, moving in exact symmetry, makes up the wonderful machine of vision in the higher races of animals, vastly multiplied in insects, some of which have 25,000 eyes, each distinct and perfect.



Muscles of the Eye.

The same ingenuity of mechanism is found everywhere. Here, for instance, is the back of a human hand with the skin removed, so as to



Outside of the Hand.

show the arrangement of tendons coming down from the extensor muscles of the fore arm to thumb and fingers, bound by a ligament around the wrist; while below it is a view of the even more remarkable arrangement of the tendons on the inside of the hand—the tendons going to the finger ends passing through a fork in those bending the second joint, while the fore finger shows the curious arrangement of the ligatures which keep all snugly in their places.



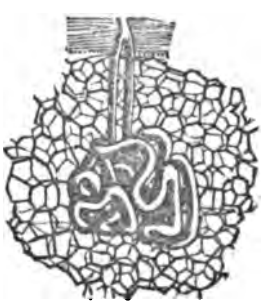
Inside of the Hand.

The interior organs of the body are not less curiously formed and adapted to their several uses. Here, for example, within the strong chest of spine and ribs, are the heart and its great arteries and veins, and the lungs, in which at every breath our blood is purified and enlivened. The engraving below shows a section of the lungs, displaying the distribution of air pipes, or bronchiæ, and the pulmonary arteries and veins, which distribute the blood to all parts of the lungs and return it oxygenated and purified to the heart; thence to be sent to every organ of the body.



Heart and Lungs, showing Pulmonary Vessels.

The formation of glandular bodies is very curious. Tubes are prolonged and folded up in convolutions, as if the great object was to increase the secreting surface, or multiply the myriads of secreting cells. They are all much alike—but what a difference in function. One



Sweat Gland Highly Magnified.

gland, or collection of tubular convolutions, separates from the blood saliva; another, gastric juice; another, bile; another, milk; another, urine, and so on. Here, for example, is a magnified gland in the skin which secretes perspiration; and every square inch of the surface of the body has thousands of these purifying blood filters, so that the length of these tubes is estimated at not less than forty miles.

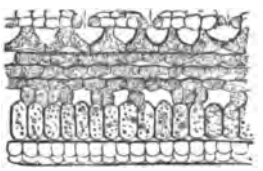
The kidneys are collections of a vast multitude of glandular tubes, whose action is of vital importance. Even a few hours' suspension of the action of the kidneys will bring on stupor and death.

Perpetually the blood enters the kidneys by two great arteries, and its impurities are filtered off and conveyed in two tubes—the ureters—into the bladder. The structure of the kidneys is shown in a portion highly magnified. The



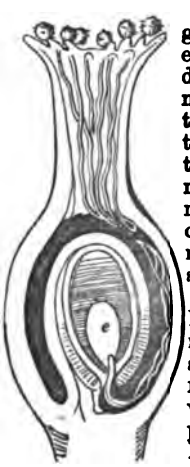
Portion of the Kidneys, magnified 60 diameters.

structure of vegetables is much more simple than in the higher forms of animal life, but even that is well worth studying. Here, for instance, is shown the arrangement of cells in a leaf.



Magnified Section of a Leaf.

But this magnified ideal section of the pistil of a flower, showing the process of fecundatior (from the "Laws of Generation," Human Physiology, part fourth), shows that some of the processes of vegetable life very closely resemble the most important animal functions.



Ideal Section of the Pistil of a Flower, showing the process of Fertilisation.

This figure shows several grains of pollen, or the male element in vegetable reproduction, adhering to the summit of the pistil and sending tubes downward. At the same time the germ, *e*, sends its tubes upward; they intermingle, and in some way the male and female elements come into contact, and the mystery of fecundation is accomplished.

In our two books—"HUMAN PHYSIOLOGY THE BASIS OF SANITARY AND SOCIAL SCIENCE." and in "ESOTERIC ANTHROPOLOGY" (*Mysteries of Man*)—we have treated of every department of Physiology, and have not ignored the one which is equally important to the happiness of the individual and the progress of the race.

FRUIT.—In the middle of June the daily receipts of strawberries in New York were 280,000 quarts. The season lasts four months, the first supplies coming in April from South Carolina and Georgia, the last in July from Northern New York and Vermont. Then peaches by the million bushels; then grapes by the thousand tons; the most delicious varieties selling for three-halfpence a pound

HEALTH THE BASIS OF INDIVIDUAL AND SOCIAL REFORM.

"Health and good estate of body are above all gold, and a strong body above infinite wealth.

"There is no riches above a sound body; and no joy above the joy of the heart."

ECCLESIASTICUS XXX. 15, 16.

"*Sanitas Sanitatum, omnia Sanitas.*"—DISRAELI.

THE object of this paper is to awaken the attention of the people of the United Kingdom, and, so far as I can reach them, of the English speaking world, to the importance of health, as the solid basis of all genuine reform and true progress in man and society. The great want of men and nations is health—the great waste, is the waste of life.

Three evils press heavily upon the people of all civilised nations, and upon none more heavily than upon the free and enlightened people of the United Kingdom. These evils are Ignorance, Poverty, and Disease. Each one is a cause of the others, and to cure one, all must be cured. Ignorance causes poverty and disease—Poverty causes ignorance and disease—Disease causes poverty and ignorance. This is our Unholy Trinity against which every good man and woman should wage unceasing war.

Great masses of people are ignorant of the laws and conditions of health. In spite of sanitary legislation and the vast amount of money expended upon physicians and medicines, multitudes are suffering from easily preventable diseases; nearly half our children die in infancy; grown men and women do not live out half their days, and the bills of mortality are the sad records of needless sacrifices of human life, which future ages may compare with those of Ashantee and Dahomey.

For there are districts in England and Ireland, where, even with the prevailing ignorance of the laws of health, the death-rate is no more than 10 in 1000 per annum. There are even towns and portions of towns where it is but 11 in 1000. What then are we to think of places in England where the death-rate rises to 30 and 35 in 1000, while in all England and Wales the average is 22 in 1000? When the death-rate is doubled, trebled and more, who are responsible for the murder of so many innocent children, so many ignorant and helpless people, whom no one has instructed in the laws of health, nor helped into better conditions of life? Consider for a moment the meaning of such statistics of English mortality as are given from official sources in 'Human Physiology,' Part I. In English towns where the average life of the gentry—the intelligent and well-to-do classes—is from 40 to 60 years, that of the working classes—the ignorant and poor—of the same towns, is from 15 to 25 years. Where the deaths of the children of the upper class under 5 years of age are 26 per cent., those of the lower class are 57 per cent. of the whole mortality. In certain towns the infant mortality among the gentry is set down at 25 per cent., tradesmen, 49 per cent., operatives, 57 per cent. Consider also the number of cases of sickness for every death, and the loss, suffering, and sorrow of it all; and that the greater part of this is preventable by the simplest means, well known to every physiologist and physician.

Let us consider a moment what Health really is.

"Health is, to every organised being, the condition of perfect development; to every sentient being, the condition of happiness.

"Health, in a human being, is the perfection of bodily organisation, intellectual energy, and moral power; the fullest expression of all the faculties acting together in perfect harmony; freedom from pain of body and discordance of mind; the element of beauty, energy, purity, holiness, happiness.

"When a man is perfect in his own nature, body and soul, perfect in their harmonious adaptation and action, and living in perfect harmony with nature, with his fellow-man, and with God, he may be said to be in a state of Health."—(*Esoteric Anthropology.*)

We can scarcely over-estimate the importance of health, or the means by which it may be preserved when it exists, or regained when lost. It is the life of life, and the condition of the highest usefulness and the greatest happiness. Most of the evils and miseries of life come from disease. The greater part of all immoralities and crimes are morbid irregularities. Cheerfulness, serenity, contentment, an even temper, a happy disposition, and alacrity in promoting the welfare of others are the natural manifestations of health.

The question of health is a much broader one than many persons imagine. It relates not only to birth, organisation, and training, but also to the production and supply of food, the choice of beverages, honesty in trade, quantity, quality, and fashion of clothing, the construction of dwellings, the drainage and cleanliness of towns, the protection of air and water from impurities, the nature of our recreations and amusements, modes of education, manners, customs, employments, and all the conditions of our physical, intellectual, and moral life. The health reform will increase not only the length of life, but the value of life. It will treble its length, and multiply far more its enjoyments. Can we urge such a reform too strongly—can we devote ourselves too earnestly to its promotion?

The social state of multitudes of the people is as deplorable as their sanitary condition. The conditions of health are also the conditions of happiness. Men need to be instructed in the whole science of life. Their modes of living are as wasteful as they are comfortless. Great numbers live in wretched dwellings, in crowded quarters, in filth and ugliness, breathing bad air, working at unhealthy employments, eating unhealthy food, stupefying themselves with poisons, without proper recreations or enjoyments—living miserable lives, and becoming wretched victims of preventable disease and premature mortality. Every person of common intelligence knows that this is a true picture of the lives of millions—a picture whose dark shades can scarcely be overdrawn. I do not wish to dwell upon it; I wish to do something to lighten its gloom and ameliorate its horrors. I wish to teach the people the Science of Human Life.

The remedy for ignorance and all its evils is the diffusion of true, practical, useful knowledge—the knowledge of the nature of man and his relations to his fellow-creatures, and the earth and elements around him. The remedy for poverty is industry and economy—the intelligent production of wealth and its equitable distribution. The remedies for disease and premature mortality are a knowledge of the laws of health, as shown in the Science of Physiology, and the means of living in the conditions of health, which must come from just laws and an enlightened political economy. Intelligence and honesty, virtue and religion made practical, will give men long and happy lives on the earth, and bring the answer to the prayer, and the fulfilment of the prophecy, "THY WILL BE DONE ON EARTH AS IT IS IN HEAVEN."

This nation, and the civilised world, we hope, is waking up to this question of health. It is very broad, very deep, very important. Perfect health would treble at least the power, the riches, the happiness of every nation in the world. It would double, perhaps treble, the average duration of life. It would remove the pain, anxiety, labours, expense, and all the terrors of disease; the distress of infant and all premature mortality, the privations and sufferings of widowhood and orphanhood, the awful waste and woe which are caused by disease and death all around us.

Look at the economics of health—no doctors' bills, no medicines, no nurses, no hospitals. Look at the number of physicians, surgeons, medical men, chemists, hospitals, dispensaries, &c., in London, and all the towns in England, living on disease—living on the unsanitary conditions, habits, and vices of the people.

We have shown how every person may pass through life from his cradle to his grave without sickness or pain, without doctors or drugs. All disease is unnatural, and preventable. The only natural death is by the gradual decay of old age—a painless falling asleep—a calm and beautiful transition, when "this mortal puts on immortality."

The Health Reform is the basis of all reforms, and includes every other. To promote it is therefore the most comprehensive philanthropy.

BREAD.

BREAD is the staff of life. Good bread contains the best food for man, in the proportions required for the healthy nourishment of the system. We tire of many kinds of food; but we eat bread every day (so it be good bread) with the same relish. A certain variety is desirable; but if we could have but one kind of food, we should choose bread. In a certain sense, we must consider all kinds of farinaceous food as bread. Wheat is the king of grains—the most perfect food of man—but we have bread also of rye, oatmeal, barley, maize, rice, &c. Even a baked potato is closely allied to bread, and the bread-fruit of the tropics is a nourishing substitute.

We do not know why it is, but the fact is observed by every traveller, that while one finds good bread in France, Belgium, Germany, Italy, and best of all, perhaps, in Austria, good bread in England is very rare. As a rule the bread of English bakers is bad, and consequently unhealthy. It is dry, chippy, flavourless, or sour, or bitter. English rolls are doughy and indigestible. Much of this bread is made of the flour of damaged or inferior wheat, or flour that has turned sour. This is doctored with alum, and alum makes the flour absorb a third more water, and so adds to the

profits of the baker. It is over-fermented, to make big loaves. Whatever the reason may be, bakers' bread is bad as a rule—the good is the exception.

Few people practise the economy of making domestic bread. Servants either do not know how, or will not take the trouble. It is so much easier to get it of the baker. There is the bother of getting flour and yeast, of raising the bread, and then of baking it. At the best, white bread, made of the innermost portion of the wheat is often a cause of disease. Unless one eats considerable proportions of fruit or vegetables with it, it produces constipation.

The sweetest, the most nutritious, and the healthiest bread in the world is that made from unbolted wheat flour—*brown bread;* not the dry and tasteless stuff sometimes made by bakers by mixing bran with their ordinary dough, but bread made of the "whole meal" of good sound wheat, and containing all its nutritive elements. Chemists have found by analysis that the nitrogenous or flesh-forming portion of wheat resides chiefly in its outer layer—the very portion thrown away, or given to cattle; and physiologists have also discovered that it is this portion which keeps up a healthy action of the bowels. No person who lives chiefly or largely on genuine brown bread, or its equivalent, in perhaps a better form—porridge made of coarse wheat-meal—ever suffers from constipation, and long-standing cases are speedily cured by a diet of pure wheat and fruit. I have never known a case, even of years' standing, and constant use of aperients, that did not soon yield to such a diet.

From the earliest known ages brown wheat bread has been famed as a most healthy, invigorating food. Hippocrates, the father of medicine, prescribed it; the hardy Spartans lived on it; the Romans of the heroic ages lived on it, and their armies conquered the world on a diet of brown bread. The most healthy peasantry of central Europe eat it as their common food. Baron Steuben said the peculiar healthfulness of the Prussian soldiery a century ago was owing to their living almost entirely on unbolted wheat bread. During the naval glory of Holland, her sailors ate the same kind. During the wars of Napoleon, when wheat was dear in England, the army, from motives of economy, was supplied with brown bread. The soldiers at first refused to eat it—threw it away—all but mutinied; but in a few days they liked it better than the white; and their health so much improved that in a few months disease was almost banished. Many of the nobility adopted it, and physicians began to prescribe it. An orphan asylum in New York was cured of epidemic ophthalmia by the use of brown bread in place of white.

And this brown bread, with its equivalent preparations, is the purest, the healthiest, the best form of human food. The model food for childhood and youth; the food of growth, purity, beauty, intellect—in one word, of HEALTH, is brown bread, milk, and fruit. There is absolutely no need of any other. A pound of wheat has more nutritious value than three pounds of beef or mutton. Lean beef or mutton is 75 per cent. water to begin with. The remaining elements—fibrine, gelatine, albumen—are identically the same as in wheat, but mingled with animal impurities, and the wheat is superior in heat-forming elements. Bread and fruit are the natural food of man; the flesh of animals is an artificial substitute.

THE FOOD OF HEALTH.

WE deal with very practical matters now, in the beginning, instead of promising to do so in a future that may not come to us and our journal. Probably this introductory number may be more widely read than those which may follow it, and there is nothing like taking Time by the forelock.

The Food of Health is one that will nourish and sustain the whole body in the best manner. It must contain the nutriment which will form the best blood, and this best blood will make nerves and brain, bone and muscle, all tissues and all organs. It must be a food which promotes all secretions and excretions; easy to digest, rapid in assimilation, with sufficient nitrogen for the flesh, with abundant carbon for heat. It must contain sugar, or fat, or the starch of which both are made; it must have also the requisite proportion of fibrine, or albumen, or gluten—the protean element of form and force; and it must have besides those qualities so sensible in their effects, yet so difficult to define, fibrous and mucilaginous, which gently excite and stimulate the mechanical and glandular action of the intestines, so as to produce regular and healthy secretions and excretions.

The Food of Health is that on which one may entirely live, and which will sustain the body in full vigour for an unlimited period. It is one, moreover, which will restore health to the sick. Even one meal a-day of such food would give health to thousands who are now suffering from dyspepsia, constipation, and their multitudinous concomitants.

We have nothing to say against many of the staples of human subsistence. Millions live almost wholly upon rice, or maize, or rye, or barley. Millions live for a large part of the year entirely upon dates. Figs, grapes, bananas, are delicious and excellent food. The Scotch thrive on oatmeal; the Irish multiply on potatoes; but the King of the cereals is Wheat; and wheaten bread is truly the staff of life.

But this is true only when it is genuine and entire. Nature has made no mistake in its formation, and that portion of wheat which our millers sell to feed pigs and cattle contains the richest elements of nutrition and healthy action. Accordingly, Dr. Nichols' Food of Health is almost entirely composed of the finest, brightest, richest wheat that can be found in Mark-lane, the central wheat mart of the world. It is such wheat as one seldom eats in bread, or finds in flour. The millers mix bad with good, damp with dry, musty

with bright, and sour with sweet. If the resulting average of flour gets spoiled, millers or bakers know how to mend it with alum, and so give it another constipating element, besides its excess of starch, and its lack of fibrine and phosphorus. Good wheat as it falls from the ear contains the elements of the best nutriment in almost exactly the required proportions. Milk and fruit give a pleasing and healthful variety. If people would live on wheat in any genuine and proper form, and milk and fruit, every drug shop in England might be emptied into the sea—but for the poor fishes—and all the doctors might keep high holiday.

But wheat, like many other good things, may not only be damaged by its modes of preparation, but it may also have its admirable qualities effectively developed. It is curious and inexplicable how the flavour of this grain becomes exquisite and delicious under certain modes of treatment. Some forms of grinding seem to take out the sweetness and life of it. If wheat meal is stirred into cold water, or even hot water, a few degrees below the boiling point, it becomes a pasty, raw-tasting nasty mess, unfit to be eaten. Mashed in a mortar, or crushed between powerful rollers, and stirred into boiling water, it is one of the most delicate and delightful, as well as nutritious and healthful, forms of human nourishment. Eaten with a little cream or milk and sugar, or any nice stewed fruit or fruit syrup, it is a royal dish; better still, it is one of the healthiest that can be eaten. We have known a single meal of such food to produce a healthy action of stomach and bowels. It is nature's food and medicine in one. Or, we may say, with natural food no medicine is needed; or good food is dietetic medicine—the only kind, by the way, known to have been prescribed by Hippocrates.

Dr. Nichols has produced a preparation of wheat, the best, he believes, that has ever been invented, which he calls the Food of Health. It has given great satisfaction, both as food and medicine. It is an absolute cure for dyspepsia, constipation, piles, and all the diseases of bad nutrition which are still curable. It contains the two elements of all cure—purification and invigoration. Another form, preferred in some cases, and more rapidly effective in those of habitual constipation, is the WHEATEN GROATS, a dietetic aperient, which has no rival in the *materia medica*.

EVERY MAN HIS OWN MILLER.

To have good bread we must have good meal. To make good meal we must have good wheat—bright, clean, plump, and dry enough to keep well, and grind without mashing or choking the mill. Above all, it should be free from *must*. In many places, even in the midst of a wheat growing district, it is difficult to get a bushel or two of good wheat. It can, however, be now sent from our Hygienic Institute, wheat, or wheat meal, coarse or fine, and in any desired quantity.

Or, every one can have his own mill, and be his own miller. A mill that will grind coffee or spices, will grind wheat. Here is the pattern of a mill made expressly to grind wheat, rice, &c., which either clamps to a table or shelf, or can be screwed to a wall. It regulates to grind coarse or fine, and is very compact and effective.



Table or Wall Mill, 6s., 8s., 12s., and 16s.

A little larger mill with a longer handle can be sold at 20s.—packed for the rail, 20s. 6d. A bag is attached instead of a box.



Patent Wheat Mill, 12s. and 20s.

All hand-mills are slow, but they do very well where a small quantity of coarse and fine meal is wanted for daily use. The best of them grind a pint of wheat in about two minutes, and any mill will soon pay its price both in the freshness of the meal and its cheapness. At the HYGIENIC INSTITUTE all kinds may be examined.

The finer meal made by these mills can be made into bread, rolls, or biscuit; and the coarse meal carefully stirred into *boiling* water, in fifteen minutes is delicious, eaten with a little sugar and milk, golden syrup, or any kind of fruit syrup or stewed fruit. No one need have a better, and no one *can* have a healthier, breakfast.

WATER.

HOW TO PURIFY IT.

A SIMPLE and beautiful philosophy was that based upon the four elements—earth, air, fire, and water—which entered into the constitution of all living things. There is earth in the bones and solid parts; air is the breath of life; our vital heat is fire, and cold is death! The human body is four-fifths water; and of our most important parts—our blood, brains, and nerves—water forms a much larger proportion.

Water is thus a very important element. It dissolves our food; it conveys everywhere the elements of nutrition; it carries off the waste matter which would poison our life if it remained in the system; it pours out of the lungs with every breath; it constantly exudes from the millions of pores all over the body. Under certain conditions men can live for days and weeks without food; they quickly perish when deprived of water.

This water, so necessary to every form of life, should be of the purest and the best. Hard water—that which holds minerals in solution—is not so good to drink, or even to bathe in, as that which is soft and pure. It will not so readily dissolve substances, and is therefore less fitted to aid digestion, circulation, and purification. Foul water, containing either living or decaying vegetable or animal substances, is not nice to drink, and may contain the germs of fatal diseases.

Unfortunately the rivers of England have been turned into common sewers, carrying into the sea or spreading in the sea matter which should enrich the land and make it fertile. They are turbid and foul with the wash and waste of butcheries, stables, tanneries, glueworks, and chemicals from thousands of factories, paper mills, dyeworks. metal works, &c. &c. In too many cases this filthy water is pumped into reservoirs and distributed for the drink of great populations.



A Drop of London Water.

A large part of the water of the metropolis is pumped from the Thames, which is the common sewer of some millions of people living in towns on its banks above London. Some is pretty well filtered by the companies that supply it; some so little purified that a drop placed under a microscope is seen to be crowded with vegetable and animal organisms, as shown in this engraving,

Dr. Frankland reports that on the 3rd of December, 1874, in the Lambeth water "living and moving organisms" were found; and the Chelsea Company's water, besides "abundance of such organisms, contained fragments of woollen and cotton fabrics, clots of the mycelium of a fungus, and fibres of partially digested or decomposed flesh meat." Dr. Frankland further adds, "the water thus charged with fœcal and other refuse matters was unfit for dietetic purposes, and could not be so used without serious risk to health." It is generally admitted that the water distributed to many towns, and even that drawn from wells, may be the source of diarrhœas dysenteries, typhoid fever, and cholera.

Now, all water as it falls from the clouds is pure and soft—distilled water, in fact. In falling through the air it often acquires impurities, such as dust, smoke, gases of factories, and noxious effluvia. The rain water is filtered by the soil, but it also acquires the soluble matter of the soil through which it percolates. The soft rain water becomes hard by passing through chalk, limestone, or clay. Water from shallow wells in towns may be filled with the town's impurities—even those of neighbouring churchyards. The water of the Malvern Hills is rain water filtered through the turf, gravel, and sand of a very hard, insoluble, primitive rock, which makes it so pure and soft that it is delicious to the taste, and can be used like distilled water for photography and chemical purposes. And this water is so healthy that several of the springs were resorted to centuries ago by invalids, and retain their ancient names—"Holy Well;" "St. Ann's Well;" and the "Eye Well," now corrupted to "Hay Well."

The boiling of water destroys the life of most of its vegetable and animal organisations. We drink them cooked, which is the safest way to swallow tapeworms and other parasites; but boiling will not remove sewage, nor lead, arsenic, or other mineral poisons.

The best way to get pure and soft water for all uses is to catch rain water and thoroughly filter it. It may be filtered before entering the cistern. This cistern should be of slate, or brick lined with cement, or galvanised iron —never of lead; nor should very soft water ever be carried in lead pipes. Use tin pipe, iron, or gutta percha. The rainfall all over England is abundant to supply every house with pure soft water, if there were the means of catching and storing it.

Where these means cannot be had, the only way is to purify such water as we can get; and this can be done more or less perfectly by filtering it as it is used from day to day.

THE landlord of a public-house in Preston was fined 40s. on Monday for permitting drunkenness. The police had found in his house a number of boys and girls about 14 years, all of whom were drunk

FILTERS.

The condition of the water supply of London has made a demand for filters, and several inventors and manufacturers have been at work for years supplying the demand. Sand, natural or artificial porous stone, and vegetable and animal charcoal are used in filters. The former strain the water clear of vegetable and animal matter, but they do not remove substances held in solution, which are the most dangerous of all. Charcoal, however, vegetable or animal, has the property of absorbing and fixing poisonous gases contained in water; and the best filters now made are said on high authority to not only perfectly clear water from sulphuretted hydrogen and other deleterious gases, from uric acid and all nastiness of sewage, which has been the death of thousands by diarrhœa and cholera, but also to remove a great part of the hardness of water, caused by lime held in solution. Dr. Frankland, the Register-General, reports that Atkin's patent cistern filters, which have been adopted for the army, navy, and Government works and offices, *reduced the hardness of the East London Company's water from* 20.2 *to* 7.1. This is a very surprising result of filtration; and these filters are no doubt the most effective, as they are the most convenient, of any yet invented.

In these filters the water passes through a porous block of pure animal charcoal. These blocks are so formed that the water enters on the surface, and is drawn from the centre. The coarser matter is stopped at the very surface of the block. The water is acted upon by an innumerable succession of minute particles of carbon until it is freed from its impurities. If the water is very hard and very impure, after a few months the surface of the filter becomes coated with a deposit of lime or other mineral matter, but this is readily scraped off or cleaned off with a hard brush, and then the filter acts as well as ever.

These filtering blocks of moulded charcoal are made of every size, from a pocket filter—supplied to tourists, &c., with an india rubber



Pocket Filter in Use.

tube, through which one can suck pure water from the filthiest puddle, the whole weighing but eight ounces—to the cistern filters which furnish perfectly filtered water for the largest establishments.

Convenient, beautiful, and even highly ornamental filters are supplied for the kitchen,



the drawing-room, the table—or one may buy merely the carbon block, and, with only a cork, fit it himself into any suitable vessel.

The principle of these filters is prettily shown in this picture of a glass table or sideboard filter. In an elegant glass funnel is seen the carbon block with a tube coming down from its centre, so that every drop of water running into the bottle on which it stands must pass through the block.

The same principle on a larger scale is adapted to larger filters and combinations of filters, so that all the water of a dwelling, or the largest establishment, may be filtered as it comes from the cistern.

Using these filters, no one need fear swallowing the germs of tape worms or other parasites, nor the filth of sewage rivers; and we have the best security we can have of freedom from all deleterious matters held in solution. The late Dr. Lamb would drink none but distilled water, which he prescribed to all his patients, and recommended not only to prevent but to cure diseases. Next to distilled water, perfectly filtered rain water is the purest we can have, and I believe it answers every hygienic and medicinal purpose. Whoever will live on pure food, breathe pure air, and drink pure water, will be cured of all diseases; the blood will be purified—all evils will be cast out of the system. With such conditions, we have in full activity the two great processes of curative action—purification and invigoration.

The living gift of genius confers authority. The artist works from life, obeys law, and has authority.

We are apt to be kinder to the brutes that love us than to the women that love us. Is it because the brutes are dumb?

As the sun gives to all, as the sap in the tree ascends to all, as the blood in the body circulates over all—so the life of love is, or ought to be, free to all.

DYSPEPSIA:

ITS NATURE, CAUSES, PREVENTION, AND CURE.

By T. L. NICHOLS, M.D.

The word *Dyspepsia* is formed of the two Greek words *dys*, hard or difficult, and *pepso*, to digest. *Digestion* is from the Latin *di*, asunder, and *gero*, to bear to carry. Dyspepsia is a more accurate word than indigestion, to describe that condition of the stomach and nutritive system in which the process of dissolving the food, separating its elements, and carrying them where they are needed to build up the various tissues and organs of the human body, is imperfectly performed.

Dyspepsia is not only a very common disease, but it is a cause or complication of almost all other diseases. It is a central difficulty, and makes the lives of thousands poor and painful, weak and miserable. As we cannot live without food, we cannot live well unless our food is properly digested. Undigested food is a foreign body in the stomach, and a source of irritation and exhaustion. We are better without it.

Look a moment at the way in which your body is built up and nourished. You take food into your mouth and masticate it slowly and completely, or should do so, mixing it with the saliva, which helps to make it into pulp, and begins to dissolve it. The first cause of dyspepsia is eating too fast—bolting your food—swallowing without chewing, or washing it down with liquids. The teeth were expressly made to cut, and mash, and grind up our food; and the salivary glands pour out their juices during the process, expressly to convert our food into a sort of pulpy mass, and begin to digest it before it reaches the stomach. Even the nursing infant takes its food slowly in little streams, which mingle with the saliva drawn by the same suction from its salivary glands.

When the food is swallowed, the stomach pours from the open mouths of its myriad glands another juice—the gastric fluid—which resembles the saliva, but is a more active solvent. It contains a little hydro-chloric acid, and an element called pepsine, which has the power of acting upon nutritive substances, and reducing them to a creamy liquid called chyme. While this gastric juice—of which a healthy man secretes several gallons every day—is acting upon the food, the stomach is in continual motion, like a living creature, rolling the food over and over, that every part of it may be dissolved.

This process accomplished, and a portion of the the dissolved matter having been absorbed into the veins of the stomach to mingle with the blood, the rest passes into the intestines, and is there acted upon by two other fluids—a juice like the saliva, furnished by the pancreas (called the sweetbread in some animals), and the bile which comes from the liver. These juices convert the chyme into chyle, which is then absorbed by the vessels of the small intestines, which select and suck up the matter they require, and carry it to the mesenteric glands, in which it is converted into blood, and thence carried to the heart. This is perhaps the most important of all the complex processes of nutrition. When the mesenteric glands are diseased, good blood cannot be made, and the patient, however well fed, dies of starvation. This is consumption of the bowels, more hopeless, if possible, than consumption of the lungs.

The heart first throws this blood into the lungs, where it receives oxygen from the air we breathe every moment for that purpose. From the lungs the blood, purified and enlivened by the oxygen it has absorbed, and also freed from its carbonic acid and impurities, goes back to the heart, and is then sent through the arteries to every part of the body, to build up the bones, to replace the wasted matter of the muscles, to feed the brain and nerves, to give life, strength, and health to the whole system.

This is the wondrous process of nutrition. Every moment of our lives the veins are carrying away from every portion of our bodies the matter which has been used and is no longer wanted—which has become waste, dead matter, filth, poison, which, when allowed to remain in the body, is always a source of disease. This once used and now waste matter passes out in the breath, in perspiration, in the urine, in the fœcal matter discharged from the bowels; which matter is not, as many suppose, undigested food, but almost entirely waste matter separated from the blood. Impede this process of purification, and we are ill; stop it, and we quickly die. To have health the lungs, skin, kidneys, and bowels, must all act regularly and freely. Thus only can the system be cleansed of its impurities. And new matter must be supplied to replace the old. Every day the blood should get as much new matter from the food, as has been wasted and expelled. We need just so much, and we need no more. Children need food for growth—adults need only enough to make up for the daily waste—the wear and tear of this wonderful machine, which daily repairs its daily damage. Thus we say—"Give us this day our daily bread."

It is true that we can fast for a day; for several days, if needful. In certain conditions the human system can bear the entire deprivation of food for weeks, and even for months, like hibernating animals. A sheep buried in the snow, a dormouse or a bear dozing in winter quarters, a toad imbedded in mud or rock, will live for weeks,

months, ages. When brain and muscles are quiet, life goes on with an infinitessimal supply of food, drawn from the gradually wasting fat and tissues. The camel in the desert lives on his hump.

But in the ordinary activity and consequent waste of our daily life, we can see what an important, central, and vital matter is this of a good digestion, and how dyspepsia is the centre and source of so many diseases. To have a good brain and nerves and muscles, we must have good blood. To have good blood we must have good food, and that food must be well digested. To digest our food well, we must have good nerves to preside over and carry on all these processes, and good blood from which to secrete the salivary, gastric, pancreatic, and biliary juices.

If we have bad blood, or a deficiency of nervous power, we cannot have a good digestion. If we have not a good digestion, we cannot have good blood; and poor blood makes poor nerves, poor muscles, poor glands, poor secretions. The dyspeptic, therefore, has a feeble brain, trembling nerves, low spirits, sensations of weakness, sinking, exhaustion, malaise, hypo, a "sense of goneness," often irritation and pain. With dyspepsia comes sour stomach, flatulence, eructations, nausea, vomiting, heat and pain in the stomach, constipation, piles, neuralgias—all sorts of aches and miseries. From dyspepsia come dimness of sight, floating specks, dizziness, singing in the ears, headaches, nasty tastes in the mouth, bad teeth, a foul breath, a furred tongue, often deeply creased, sometimes pale, sometimes red at the edges, enlarged, flabby or inflamed tonsils, pain or tenderness at the pit of the stomach, wind, water brash, nausea, rumblings, gripings, sore throat, stomach cough, a disordered liver, rheumatism, gout. A dyspeptic stomach deranges the whole system, and is the centre and source of every sort of pain and misery.

Any disease may come with or proceed from dyspepsia. The hypochondriac and monomaniac is first of all a dyspeptic. Nervous exhaustion is a consequence as well as cause. Most cases of lung disease begin with dyspepsia. Nine cases in ten of what are called diseases of the heart, are really dyspepsia. The heart has no organic disease, but it sympathises with the wretched stomach, and when disease of the heart happens to be the fashionable malady, doctors tell you you have it, and treat you accordingly.

Abernethy was quite right in referring almost all conditions of disease to the stomach. Make that right, and all the rest will come right. It is the key of the situation. A good nutrition is the first condition of health. There can be no cure of any disease without it. For health we must have sound nerves; we cannot have sound nerves without good blood; we cannot have good blood without good digestion, nor good digestion without good blood; since the nervous power to secrete the gastric juice and the materials of which to form it both come from the blood.

Let us here glance at the most frequent causes of dyspepsia; for the cause of a disease points to its cure. In most cases if we remove the cause, the cure naturally and spontaneously follows. The most simple and evident causes are eating bad food or eating too much. Certain kinds of food are difficult of digestion. They "upset the stomach," we say, or "lie hard on the stomach." Fat meat, oily fish, smoked and salted meat or fish, are hard of digestion. So are fruits preserved in sugar, rich cake and pastry. The first is full of butter and sugar, the last of butter or some kind of grease, which protects the fine flour from the action of the gastric juice. Generally what will keep meat, fish, or fruit, from fermentation and putrefaction, will also make it difficult of digestion. Some persons cannot digest cheese —lobsters, crabs, and mussels, disagree with others. The white portion of hard boiled eggs is acted upon but slowly in most stomachs, and fried eggs are worse. Most fried food is difficult of digestion. Frying makes albumen hard, tough, and greasy. Ordinary bread and rolls fresh from the oven are very difficult of digestion. Stale bread and toast are much better. But good, unfermented brown bread may be eaten fresh from the oven.

Eating too much food is a more frequent cause of dyspepsia than eating bad food. The stomach is overloaded, and its powers overtasked. It might be equal to a pound of food—we give it two or three pounds. It can secrete only a certain amount of gastric juice—only a corresponding amount of food can be dissolved. The rest remains an irritant, turns sour in the stomach, ferments, putrifies; becomes a cause of disease. The stomach breaks down under the heavy tasks laid upon her. More food than is needful, even if digested, is an oppression to the system, and causes waste of life. One ounce too much is an ounce of mischief.

Irregular eating is, perhaps, as frequent a cause of stomach disease as over-eating. The orderly process of digestion is interrupted. Before the stomach is half through with one job, we give it another. It must set to work again—secrete more gastric juice, churn over a new load, grind a new grist, and so on, a dozen times a day, with biscuits, cakes, sweetmeats, until it is utterly disordered and disgusted. The stomach needs rest as much as the brain and muscular system. Eat at your regular meals, which should seldom be less than five hours apart, not more than thrice a day. The sensation of hunger is often only some irritation of a disordered stomach, and the best remedy for that is to take a glass of water, which soothes the fever, and is at once absorbed into the blood, and needs no digestion.

All kinds of stimulants are potent causes of indigestion. Stimulating condiments excite a false appetite, and induce us to eat too much. Stimulation is followed by depression. Tea, coffee, and even so mild a stimulant as cocoa, excite and then weaken the nervous power. Tobacco is a more virulent poison, and, therefore, more injurious. No doubt the after-dinner cigar excites secretion and helps digestion—so does the *petit verre* of brandy, or the *demi-tasse* of *café noir*. But by this very excitement of stimulation they gradually weaken and exhaust the nervous system. For what we borrow in this way we pay heavy interest. The dinner pill comes into the same

category. All stimulants excite, disorder, and finally weaken the digestive powers, produce disease, and shorten life. None of them are food—none give real strength—none are necessary, and all persons would be stronger, healthier, and better without their habitual use.

Whatever weakens the nervous power of the system may be a cause of dyspepsia. Overwork of body or of brain fatigues and exhausts the vital powers. No one should eat when fatigued. Wait till you are rested and then eat. If the body is tired, how can the stomach digest. If the brain is weary, sleep if you can by all means, but do not eat. We should never take a cold bath for half an hour before or two hours after eating. Never eat much when the powers of body or brain are about to be severely tasked. No one can run or row, or speak or write, on a full stomach.

Napoleon lost a battle because he had dined—and many a lawyer has lost a case, and many a preacher made a dull sermon for the same reason. After-dinner speeches are bad for those who speak and those who listen, unless both have been very temperate in eating and drinking.

The brain or the muscles demand all our nervous power—what have we left for the processes of digestion and assimilation? If we resort to stimulants, we may work indeed, but at a fearful cost. Overwork, with stimulated nerves and brain, causes dyspepsia always; often heart-disease, paralysis, or apoplexy.

Another cause of dyspepsia as frequent as any, perhaps the most difficult of cure, is the nervous exhaustion of amative excess.

Excess is excess. Lawful or unlawful, the drain upon the system, the nervous exhaustion, the bodily injury, are all the same. Gluttony excites to lust; condiments, narcotics, stimulants aggravate it; and all nervous abuses produce nervous disorders, exhaustion, and disease. Solitary vice, which often begins in infancy and childhood, and spreads in schools and among both sexes, weakens, and often wrecks, the nervous system, and produces dyspepsia, hysteria, epilepsy, and many painful and fatal diseases. Excessive indulgence, in marriage or out of marriage, produces the same result of nervous exhaustion. Women have the additional burthen of childbearing and nursing. I have treated, very plainly and thoroughly—as their importance demands—in the Fourth Part of *Humann Physiology*, and especially in *Esoteric Anthropology*, of the sexual functions and relations; of the morals and laws of the Reproductive System; of Love, Marriage, Paternity, and Maternity. Here I can only allude to amative excess as one of the most frequent causes of dyspepsia, and many painful and fatal diseases.

Here, then, are the chief causes of dyspepsia.—Bad food; over-eating; stimulants; excessive amativeness; over-work; nervous exhaustion. Every diseasing influence may be a cause of dyspepsia. Bad air, insufficient food, anxiety, grief—whatever lowers the vital powers—may hinder digestion. An excited brain robs the stomach. Grief takes away the appetite. When all the strength of a woman is going to the child in her womb, her digestive power is weakened, and almost suspended. Violent anger or grief will produce such a change in the mother's or nurse's milk that the babe will throw it up, or go into convulsions. A dyspeptic mother has a fretful child. Hereditary predisposition is often a cause of this, as of most other diseases.

In dyspepsia the blood is poor, the nervous power is deficient, the gastric juice is weak, the stomach is either irritable and feverish or flabby and inactive, and the whole system, body and mind, are affected by its condition. Disorder and disease are everywhere.

Then you rush to the doctor. He gives you aperients or cathartics to move your constipated bowels; stimulants and tonics to excite some action in your stomach; opiates to allay your pains. But every such artificial excitement, after the first momentary relief, leaves you in a worse condition. This is the natural effect of all stimulants. You must increase the dose of the cathartics, and the tonics and stimulants, which give no real strength, but leave the nerves with less power of spontaneous action.

There is one, and only one, method of cure. It is simple, natural, physiological, effectual. It is Nature's own way of curing all diseases.

The first thing to be done with a weakened, disordered, diseased stomach is to *give it rest*. It is tired, and needs it; it is feeble, and demands it. Rest from labour—entire repose—is the condition of reparation with a diseased stomach, as with a broken leg, or a tired brain.

But one must eat, you say. True; we cannot go on very long without eating. There must be food to make the blood, which furnishes the matter for the repair of nerves, and muscles, and glands. Entire rest of the stomach for a long period being generally out of the question, we must do what we can. We must eat but little, and at long intervals, and also of the kinds of food best suited to our condition. This is the dictate of sound physiology and of common sense.

The stomach must rest. How long? The longer the better, so that the loss is not more than the gain. In "How to Live on Sixpence a Day," I mentioned a case of dyspepsia in which the patient fasted entirely for three weeks. She was in my own house, under my own care, and submitted entirely to my direction; and her case was so bad that I saw no other way. She drank pure water when she had thirst, but took no particle of food for seven days, when I gave her a piece of a peach with a little cream. It produced such a burning in the stomach that she was glad to fast another week, when I again tried the experiment of a little fruit, with the same result. At the end of the third week of this absolute fast, with no food but the two ounces, perhaps, of peaches and cream, she was able to digest without pain, and rapidly regained her health and strength.

In this case—one of the worst I ever saw—*rest* was almost the only means of cure. Give a vital organ rest, and nature does all she can to repair damages. How quickly the healing process begins in a wound or fracture! It is the same with the internal organs of the body. Re-

move the cause of disease and nature's *vis medicatrix*—the healing power of life—immediately sets about the work of reparation.

It is not necessary in all cases that the stomach should entirely rest for weeks or even days; but there should be many hours of continuous rest, during which nothing should be taken, unless it be sips of pure water to allay fever or irritation. Water is often as useful to the mucous membrane as it is to the external skin.

Many dyspeptics should eat but once in twenty-four hours. I am acquainted with a lady who took but one moderate meal a day for seven months with great advantage. This gives a weak and disordered stomach a rest of twenty hours. Two meals a day, say breakfast at eight and dinner at two or three o'clock, would still give the stomach a rest of perhaps twelve hours after the digestion of the second meal. In whatever way it is managed, the diseased stomach and whole apparatus of digestion must have long intervals of perfect repose. This should last in every case, in sickness or health, during all the hours of sleep, which is a special time of reparation and vegetative life. It is a good rule for every one never to eat within six hours of retiring to rest. Then sleep is sweet and dreamless—no fever, no nightmare. We wake refreshed, blithe as the birds at early morn, which sing an hour or two and then get their breakfasts. One who eats a late supper is more in a hurry for his breakfast next morning than one who has eaten nothing since dinner, because he is less refreshed by sleep, and the fever and irritation of his stomach give him the sensation of hunger.

REST—long intervals of rest—remember, is *the first condition of cure.*

Where dyspepsia is the result of nervous exhaustion, there must be other rest than that of the stomach. To remove the cause of a disease is often its cure. If the brain has been overworked, and has used up the vital force that should have gone to the stomach, it must have rest. If severe bodily labour or muscular exercise has had the same effect, which, however, is a much less frequent case, then the muscles must have rest; but hard students, men of letters, professional men, and men of business are oftenest dyspeptics. The excited and stimulated brain and nerves use up the life-forces much more than the muscular system. Worry and care are worse than the severest toil. Still, I am obliged to caution all patients against long, wearisome walks, which exhaust the strength that should go to the work of reparation and cure. Exercise is good; but it should be rapid, frequent, invigorating; not long and fatiguing. It is best when it employs all the muscles, and not alone those engaged in locomotion. The passive exercise of a brisk ride on horseback is generally better for a man who works with his brain than walking; and an hour in the garden with hoe or spade gives at once exercise and recreation. For a bright, varied, and interesting exercise, mingled with social hilarity, and full of magnetic life, I know nothing better than Dr. Dio Lewis's American play of "Bean Bags."

For brain-toilers there is specially needed the rest, relief, and recreation of genial society—talking rather than reading, music, gaiety, some pleasant distraction from one's daily work. For lack of this people seek what they call a change. They go to the mountains or the sea, they travel on the Continent; and if they can leave work and newspapers and find amusement and rest, it does them good. Americans like to get off into the wildest regions of the Adirondacks or the Rocky Mountains, camp out, hunt, fish, and live like savages for a few weeks, and then come back to their money-making.

And there must be rest from all kinds of exhausting habits and passions. It is not the labour of the brain, or of the muscles, that is, for great numbers, the most serious cause of nervous exhaustion and consequent disease. Amative excess destroys more than work or worry. Health is wrecked—life is lost oftener in that way than in any other. The life-forces that should supply, as a full fountain, brain and body, stomach and heart, digestion and circulation, are wasted alike in "lawful" and unlawful pleasures, until the exhaustion falls upon the centres of life, and causes dyspepsia or consumption, paralysis or apoplexy. Reckless and wilful waste becomes in a multitude of cases involuntary and habitual. But this is a matter so important as to need special treatment. Enough to say here that there must be *rest* from this cause of evil before its effects can be removed. There must be entire chastity—perfect continence—purity of mind, heart, and body, for the cure of any serious disease, so that the strength, the vital force, the nervous energy, may flow to the weakened organ and restore it to health. Entire rest to the reproductive system is an absolute condition of cure.

Now comes once more the question of food. To have a healthy stomach and a good digestion, we must have good food at proper times and in proper quantities.

What is good food? It is that which is adapted by nature to build up and sustain every plant and animal in health. Some plants flourish best in one soil, some in another. Horses, cattle, deer, grow strong and vigorous on grass. Tigers and wolves must have the flesh of animals. The monkey tribes live on fruit and nuts; beavers on the bark and twigs of trees; birds on seeds or insects. In his anatomy and physiology man resembles most nearly the monkey tribes, who feed on fruits and the seeds of plants; and wheat, rye, maize, rice, oats, barley, chestnuts, fruits, and bulbous, tuberous, and other roots and plants, are, and always have been, the chief sources of food for the great bulk of mankind. To these have been added milk and its products, eggs, fish, and the cooked flesh of animals killed in the chase, or kept and fattened for slaughter. But many millions of the human race have in all ages lived entirely upon grains, fruits, and vegetables, and many millions also eat so little flesh, or eat it so seldom, that it can hardly be considered an important portion of their food.

The natural food of the infant is its mother's milk. But the mother should be strong and healthy, or she cannot give health and strength

to her child before its birth or after. As a rule, diseased parents must bring forth diseased offspring. Parents with weak brains or bodies, lungs or stomachs, can scarcely expect to have healthy children. Hence multitudes are born with hereditary diseases, or tendencies to disease. The child is formed of the elements furnished by its parents. It is built up for nine months by the blood of its mother, of which its whole body at birth is formed; then for a year upon her milk, secreted from her blood.

The natural food of childhood is bread and milk and fruit. The nearer we keep to these and their combinations the better. The less a child has of fish, flesh, and fowl, sauces and condiments, and all stimulants, the better. The healthiest food for every child is unbolted wheatmeal porridge or brown bread, milk, and fruit (ripe or cooked). With such food its blood will be pure, its complexion clear, its eyes bright, and its nervous and muscular systems perfectly nourished. And with little variation or addition, such food is also best for adults. We can add eggs, vegetables, fish at times. The less we eat of flesh the better. It is never necessary; it may be doubted if it is ever useful. Fish and cheese have more nutriment than beef or mutton, and in a purer form. Pork, either as ham or bacon, or in whatever way, is a coarse, foul, and often diseased food, and very difficult of digestion. Of all unclean beasts, the hog is one of the last that should be eaten. Jews and Mahomedans have good physiological reasons for abstaining from the use of swine's flesh as food. It breeds scrofula and leprosy, tapeworm and trichina.

The dyspeptic should select the purest and best kinds of food—pleasant to the taste, not too difficult of digestion, and such as will make good blood. The type of solid food is wheat, rather coarsely ground, and unbolted — the hearty, healthy, whole meal of our ancestors, who ate it —much more than we do—in its natural condition. They soaked and boiled the whole grains until they burst, and ate them as *frumenty*, or "fermity." They mashed the wheat between two stones, or pounded it in a mortar, and boiled it into porridge or baked it in cakes; and either way it is healthful and delicious. The WHEATEN GROATS—so excellent in all dyspeptic ailments—such a speedy and perfect cure for habitual constipation—are made by crushing every kernel flat between powerful rollers; and no food can be more healthful or more delicious. The FOOD OF HEALTH is prepared in a similar way, but with an added process, which makes it finer, and to many persons more agreeable. Both have a singular mucilaginous sweetness that one never tastes in wheat merely ground. But wheat ground in any way, so as to retain all the rich elements which are commonly thrown away—as food to pigs and cattle—stirred into *boiling* water, and boiled fifteen or twenty minutes, makes a delicious "mush" or porridge, which may be eaten with a little milk and sugar, fruit syrup, or treacle. It contains the best form of human nourishment—the materials for all the tissues of the body in almost the exact proportions required. It is easily digested, and so gently stimulates the action of the bowels that I have never known a case of constipation, even the most obstinate, that could not be cured by its daily and persevering use. The bread made of this whole wheat meal, ground a little finer, is the sweetest, the most digestible, and the most nutritious in the world—the bran of wheat containing a large proportion of its most important elements, especially its nitrogen and phosphorus.

Every family can have a small hand-mill in the house, so that fresh meal may be ground every day, coarse and fine, for mush and bread or biscuits. Plump white wheat can be had by the bushel or sack of farmers or corn chandlers, and this affords at once the best and cheapest diet in the world. Or, the Wheaten Groats, Food of Health, and whole meal of wheat, can be procured at, or ordered from, the Hygienic Institute. Add fruit and vegetables in their season, some of the hundreds of delicious dishes given in "How to Cook," and no one could wish for a more healthful and delightful diet.

Oatmeal porridge is also excellent and very nutritious food, and may be alternated with the wheat at pleasure. Rice is almost the sole food of many millions, and is very bland and easy of digestion, but requires the addition of a small proportion of milk, or eggs, and fruit. Barley, in soup or bread, is full of delicious nutriment.

And fruit itself, apples, pears, peaches, grapes, figs, dates, strawberries, &c., are nutritive and healthful, as well as delightful. Fruits ought to form a part of every meal—not eaten as a luxury at the end of a heavy repast, but as staples of nourishment. Baked or stewed apples, stewed pears or prunes, can be had all the year round. Figs and raisins put in hot water, and slowly brought to the simmering point, and then kept so for an hour or two, are most healthful, as well as delightful dishes. The best pudding I know of is made of bread and fruit, put in a deep dish in alternate layers, filled up with a thin fruit syrup, or sugar and water, covered over, and baked in a slow oven four hours. But the reader will find no end of excellent dishes in "How to Cook," as, also, he will find the theory of the diet I recommend in "How to Live on Sixpence a-Day," and also in "Esoteric Anthropology" and "Human Physiology."

Infants are commonly nursed and fed into dyspepsia, and would suffer far more than they do if their stomachs had not a strong power of throwing up the surplus of what they are crammed with. Unfortunately, great numbers of infants are drugged. Even if they do not take opium, they *must* take the beer or spirits, the tea or coffee, that are drunk by their nurses. These narcotics go to the blood, and from the blood to the milk —they adulterate the infant's food, and they act directly upon its nervous system. No woman who nurses a babe should touch tea or coffee, beer, wine, or spirits. Better the pure, bland milk of a healthy cow, than the drugged or alcoholised milk of a so far necessarily unhealthy woman.

A babe may be fed during three months once in three hours, if awake; from three to six months once in four hours; but by the time it is a year old, it should have its food only three times a

day: and no child or adult should eat more than three times a day, with an interval of six hours between meals. This will give the stomach time to rest between digesting one meal, and beginning on another. And time to rest is the great want —the way to prevent dyspepsia, and the absolute condition of cure.

Four or five meals a day are what no stomach can long endure. Three meals are better; and for most dyspeptics two meals would be better still. In any case, the stomach must rest; and in most cases, the more the rest can be prolonged, without great discomfort or exhaustion, the better. All this is so much a matter of habit that no one knows what he can do until he fairly tries the experiment. In hundreds of cases men suffering from dyspepsia and other chronic diseases which often attend it, have been perfectly cured by being put in prison and kept upon bread and water, given once in twenty-four hours.

Quantity? How much may a dyspeptic eat? The less the better. In many cases the only cure is "the hunger cure." Mr. Brown, of Rhode Island, had been the worst sort of dyspeptic for years, and had, of course, gone the rounds of the doctors and their drugs, with the usual result. At last he took a great resolution and kept to it. He ate one ounce of dry-toasted brown wheat bread for his breakfast—ate it slowly and masticated it thoroughly, for he found that eaten in this way a very little food allayed his hunger. Better than that, he found he could digest it without pain. It did not turn to fire in his stomach. Six hours after he ate another ounce of bread, toasted dry as rusk, and carefully weighed. At night he ate sometimes an ounce and sometimes half an ounce. When he was thirsty he drank pure water. From the day he adopted this diet he began to mend. The tired stomach had rest—the irritated stomach was soothed—the exhausted stomach grew stronger day by day as he kept on for a year. And what is remarkable, and will seem to many incredible, his strength gradually increased on this diet, until he could do a good day's work of the hardest manual labour; and even his weight increased on this daily ration of 2½ to 3 ounces.

A man in full health can live at his best on from eight to twelve ounces of dry solid food a day—wheat, oatmeal, peas, beans, &c., or their equivalents. Six ounces of dry bread and two ounces of mild cheese will afford all the elements of nutrition in amply sufficient quantity. Add a bunch of grapes, a baked apple, a few strawberries, and one may live luxuriously. Figs are the chief food of millions of hardy and athletic people. Other millions live for several months a year almost entirely on dates. Whole peoples subsist in high physical condition upon the bread-fruit or plantain. Any Englishman who has seen service in India can tell you of the strength and endurance of multitudes of men who live upon a simple vegetable diet. There is no wilder mistake than the common notions about the amount of food and the kinds of food required to nourish the human body and keep it in perfect health. Over-eating is an almost universal habit, and people eat from three to five times as much as is necessary. The work of disposing of this needless food exhausts the powers of life, and is itself a cause of many diseases. For one who gets too little a hundred eat too much. For one who starves a thousand die prematurely of gluttonous excess.

As the chief cause of dyspepsia is over-eating and bad eating, its chief cure must be abstinence —rest to the wearied and exhausted stomach —and a very pure and moderate diet. No stimulants. It is useless cruelty to whip and spur a jaded horse or a jaded stomach. No condiments. If they excite, they also irritate and exhaust. Pepper, mustard, and spices will not cure a pale and flabby, or a feverish and irritable mucous membrane. Meat soups, and broths are generally more difficult to digest than more simple and solid food. The water they contain must first be absorbed, they cannot be masticated and insalivated. They form a glutinous mass in the stomach, upon which the gastric juice acts slowly. Bread, and rice cooked dry, if slowly eaten, are mixed with the saliva, and form a bland pulp, which the gastric juice instantly penetrates and quickly dissolves—provided that the quantity is not beyond its powers. And as to quantity, never forget that one ounce more than the stomach can readily dispose of is a cause of irritation and disease; and that all food beyond what is needed to replace the waste matter of the system is not only useless for health, but a needless strain upon the vital powers. Our over-eating is not only a waste of food, but it is a waste of life. Gluttony is a sin as well as drunkenness, and it is probably a cause of more immorality, more disease, and more premature mortality; yet how seldom is it mentioned in our pulpits—how little is it even thought of as a *deadly* sin!

In the cure of dyspepsia, rest to the diseased organ is the chief thing—the key of the position. But there are also other things to be attended to. The skin sympathises with the stomach. Its great function of freeing the body from its impurities is imperfectly performed. We must quicken its activity by the daily bath, and vigorous friction over the whole surface of the body. Begin with a thorough wash with hot water and soap; rinse off with cold water; and finish by wiping dry, and a good rubbing all over with a coarse or Turkish towel. If very liable to chill, the daily morning bath may be begun with warm water; but it should end with a dash of cold water, which gives tone to the skin, and leaves it in better condition. As soon as possible, use only cold water. Rub well, and freely pummel with the fists, the whole abdominal region. Expand the chest and give the lungs plenty of air, that the blood may get its oxygen. Once every day try and take some quick exercise, so as to cause a little perspiration; but avoid fatigue.

If there is constipation, take a sitz bath or the fountain bath once a day, at any convenient hour, but not within half an hour before or two hours after eating. Any tub in which you can sit in two to four inches of water will answer. Begin shallow and tepid, and come gradually first to cold water, and then to a greater depth. Dyspeptics have little reactive power, and must feel their way.

A feverish or irritated stomach may be soothed by drinking water slowly, and not above a gill at a time—the softer and purer the better. Clean or filtered rain water is better than hard water. At night a small towel may be wrung out of cold water and laid, two or four fold, upon the abdomen, and well covered with flannel—not with mackintosh; when it gets dry it may be taken off, and the surface sponged and rubbed dry. Where there is sufficient reactive power, a wet bandage around the waist, and covering the bowels, may be worn, with a flannel one over it, with great advantage.

Dyspeptics are subject to a cough, caused by irritation of the stomach from undigested food, which is reflected by the pneumo-gastric nerve upon the lungs. A glass of cold water will allay it.

The most obstinate constipation will give way to a spare diet of coarse brown bread or mush, Wheaten Groats, Food of Health, and fruit. Eating too much, and eating fine flour bread, pastry, and other concentrated food, are the usual causes of constipation. All the strength goes to the stomach and upper intestines, and is exhausted in dissolving and disposing of the food, too great in quantity, and too indigestible in quality. No force is left for the lower bowels, which become weak and inactive.

Aperients and cathartics whip and spur the diseased organism—but they soon fail of their effect; larger doses are required, and if they give some present relief, they also do permanent injury. Injections of cool or cold water, on the contrary, not only relieve the bowels, but strengthen them for spontaneous action.

In the case I have given of a three weeks' fast, the bowels took on a natural action before food had been taken. In a case given by the patient in Mrs. Nichols' "Woman's work in Water Cure" (last edition), an obstinate constipation of some years standing yielded to the daily use of the wheat meal porridge. As a rule, no one who makes even one meal a day on coarse brown bread and fruit, or coarse wheat porridge, will suffer from constipation.

When nervous exhaustion has caused dyspepsia, and with dyspepsia come constipation and piles, the dyspepsia must be cured before much can be done for the piles; but the portable fountain-bath will give great relief and expedite the cure. The sitz bath is also very useful. But in all these cases the central difficulty must be removed. There must be a healthy stomach, in order to have a good digestion—good digestion of good food makes good blood, and good blood renovates and builds up healthy and vigorous nerves and muscles. Bathing and exercise excite the purifying organs to action; and we have the two great processes of cure—purification and invigoration.

Is a flesh diet good for dyspeptics? Rarely if ever. If there be ulceration of the stomach, flesh meat is not only bad, but dangerous, for this reason—the quality of the gastric juice is adapted to the kind of food that is eaten. When flesh is taken into the stomach a gastric juice is supplied fitted to dissolve flesh. When vegetable food is taken, there is immediately poured into the stomach a milder gastric juice, adapted to its digestion. Now, when there is ulceration of the mucous membrane of the stomach, the muscular tissue is laid bare and unprotected, and the gastric juice, formed for acting on flesh, acts on the flesh of the stomach as well, and no cure is possible. Keep the patient on bread, milk, fruit, and vegetables, and he soon recovers. The dog, naturally a carnivorous animal, can be made to live on vegetable food; but, in that case, his gastric juice changes its character; and the change of food changes his blood and disposition. Even the tiger loses his ferocity when fed on vegetable food. The late epidemic of savage outrages and murders in England was coincident with a large increase of wages, and a larger consumption of flesh, as well as of intoxicating beverages.

The dyspeptic, the consumptive, the invalid from whatever cause, needs the purest and blandest forms of nutriment; such as are best adapted to a weak or diseased organism; such as will make pure, sweet blood, and renew the exhausted nerves. The blood of the drunkard smells of alcohol. Every blood globule is intoxicated, and every nerve cell as well. The poison of tobacco pervades the whole body and brain. The blood of a flesh eater will putrify much sooner than that of one who lives on bread, fruit, and vegetables. The wounds of vegetable feeders sooner heal, and are less liable to inflame and mortify. Flesh eating disposes men to fevers and all kinds of inflammatory diseases—to scarlet fever, small pox, typhus, and cholera. Therefore, from time immemorial, physicians have kept fever patients on toast water, rice water, gruel, fruits, and what is called an anti-phlogistic regimen. Really, the best of all remedies for almost every attack of illness is perfect rest, and abstinence from all nourishment. Be washed all over; go into a clean bed; breathe pure air; drink pure water if thirsty; put wet cloths to the head, or stomach, or bowels, if there is pain or fever; and fast entirely until you feel very well and very hungry. In most cases of illness this is better than all the doctors and medicines in the world.

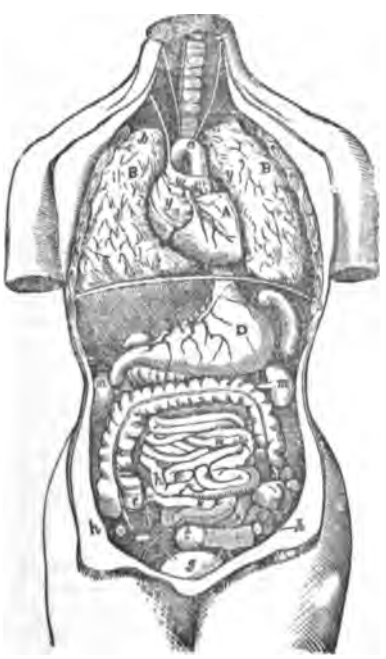
In certain cases one needs to relieve an abused stomach by a warm water emetic. Drink as much as you can, and put your finger down your throat to excite nausea. Repeat if needful. This is better than ipecac or antimony. If costive, take tepid water injections. Knead the lower bowels vigorously, to excite them to action. Bathe the whole body as often as there is fever. By these simple, but most effectual means, all ordinary illnesses can be speedily cured; and by reasonably right living all illnesses can be avoided. If men would only eat, drink, breathe, and bathe as they ought, they would never have but one disease, if, indeed, it can be called a disease—the gradual decay of all the bodily powers; and they would die the only natural death—the death of a ripe old age.

Dyspeptics! no art can cure you—but nature can, if you will only give her a chance. "Cease to do evil—learn to do well." Remove all causes of disease. Observe all the conditions of health. No over-work—no over-worry. Abstain from all sexual indulgence, and from all diseasing

habits. Renounce stimulants of every kind. Fast and Rest. The secret of all cure is not in doing, but in *not doing*. Let your stomach alone and it will recover its digestive powers. It wants no dosing, no bitters, no tonics, no poisons—it wants *rest*, and then such bland, simple, pure food as it can make into pure blood which will renew your life. Breathe good air and plenty of it. Fill your lungs. Cleanse every pore of your skin by bathing and friction. This is good exercise also. Live all you can in the sunshine and out of doors. Light is life.

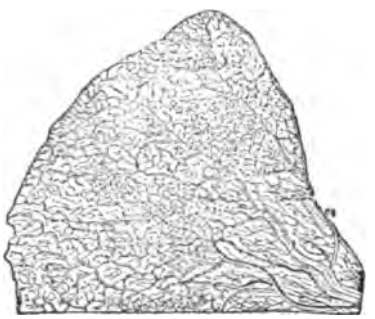
And when this return to nature has cured one of the most prevalent of the diseases caused by the unnatural habits of civilised life, and the prolific mother of many painful maladies, you will know how to keep the health you have regained. Henceforth, eat to live. Henceforth, economise the powers of life, for "Health and good estate of body are above all gold, and a strong body above infinite wealth." No man can enjoy life, or perform its duties worthily, without health; nor can a man give what he does not possess to his posterity. Better give a child a sound constitution and a good education, than all other wealth

That the reader may the better understand. and be the more strongly impressed with the nature and importance of the process of digestion, I give some illustrations of the organism engaged in this function, copied from Esoteric Anthropology (Mysteries of Man), a book I would gladly place in the hands of every reader of this paper.



Dissection of a Human Body, showing the Internal Organs.

Above is presented a dissection of the human body, showing the positions of all the internal organs. In the chest, or upper portion of the great cavity, parted off by the *diaphragm*, are the *lungs* B B, the *heart* A, and the arch of the *great aorta*, the largest artery, *a*. Beneath the diaphragm, in the exact centre of the body, as if to mark its importance, is the *stomach* D. The dark body at the left is the *liver;* the smaller one on the right the *spleen; m. m.* are the kidneys, and the abdomen is filled with the large and small intestines.



Distribution of Veins in the Outer Coat of the Small Intestines.

The intestines are not mere tubes to carry off waste matter, but complex and wonderful organs, full of arteries, veins, nerves. glands, lymphatics, &c. This Engraving, representing a microscopic



Villi and Follicles of the Ileum highly magnified.

view of a very minute portion of a small intestine with its veins injected, shows the wonderful complexity of this organism.

The internal coat of the small intestines is covered with minute excresences, like teats, myriads in number, called *villi*, presenting a vast surface to the chyle, from which the materials of the blood is to be selected. These have no perceptible openings, but contain an elaborate aparatus of arteries, veins, and nerves. In these villi the matter which is to become blood undergoes one of its most important transformations. Between the villi which absorb are seen the follicles or openings, which pour matter into the intestines.

For the theory and practice of a pure and healthy diet I again refer the reader to my two little books: "How to Live on Sixpence a-Day," and "How to Cook." In "Human Physiology the Basis of Sanitary and Social Science" he will find the elements of the science of life and health, and the principles of individual and social reform. In "Esoteric Anthropology" he will find a very comprehensive handbook of physiology and health, and much matter of great interest and importance. There is much admirable hygienic instruction, with many illustrative cases, in "A Woman's Work in Water Cure and Sanitary Education"

DIETETIC REFORM.

THE London Dietetic Reform Society held its first public meeting at the Quebec Institute on the 8th of July. There was a very good attendance; the speeches were listened to with evident interest; and a considerable amount of hygienic literature was distributed at the close of the meeting.

This new society is composed mostly of active young men, who are not only vegetarians, more or less, but teetotallers and antitobacconists. Most of them are Good Templars. Dr. SEXTON, who had been elected President of the Society, took the chair, and Professor NEWMAN, the President of the Vegetarian Society, which since 1847 has had its headquarters at Manchester, came across England from Weston-super-Mare to address the meeting. Dr. NICHOLS also took part in the proceedings. In opening the meeting Dr. SEXTON said:—

Dietetic reform lies at the basis of a large number of other reforms, it being impossible that you can have a people intellectually great or morally sound who are physically diseased. The state of things prevailing at present with regard to the health of the people is such as to demand attention on the part of all those who are interested in the well-being of society. Dr. Elam has demonstrated—1. That the average death-rate is slowly but continually increasing. 2. That men die now at an earlier age than they did thirty years back. 3. That even the diseases which are best understood are increasing progressively in annual mortality unchecked by any resources of art. Now, this state of things in the face of all the sanitary improvements that are taking place, such as better drainage and ventilation, increased wages on the part of the working-classes, advancement of scientific knowledge, a higher education on the part of medical men, is terrible to contemplate, and at the first sight somewhat inexplicable. We shall not, however have to seek far before we shall be irresistibly driven to the conclusion, that very much is due to the objectionable habits of the people. Dissipation and debauchery are, alas! too common amongst us, despite all our talk about progress, civilisation, and morality. That the use of intoxicating drinks and of tobacco is largely productive of disease no one can doubt who has devoted any attention whatever to the subject; and with regard to our food, the neglect of attending to the laws which an All-Wise Providence has implanted in our constitutions is the source probably of more than half the physical ills to which "flesh is heir." The old Roman proverb, "*Plures crapula quam gladius*"—Gluttony kills more than the sword—is as true to-day as when first uttered. Now, in this matter of diet few persons ever take the slightest trouble to ascertain what kind of food is best adapted to their constitutions, and what are the laws which require to be obeyed in the selection and preparation of food, or the times and modes of taking it. In this matter, as in all others, they do but follow the tyrant fashion, and adhere to customs which ought long ago to have become obsolete. We take certain kinds of food because our fathers did the same before us, and we never stop to inquire whether they did wisely in so doing. We have become so accustomed to feed on flesh meat that we have come really to look on that as a necessity, which is utterly opposed to the laws of our constitutions, and therefore productive of immense mischief. When we speak of living entirely on the fruits of the earth and abstaining from the flesh of dead animals, involving horrible slaughter to procure, people open their eyes, stare at us, and wonder whether we are in our senses. "You can't live without 'meat'!" exclaims one. "Why has man carnivorous teeth?" asks another; and "The animals were sent for our use," exclaims a third. Upon what principle the animals were sent for our use, if use means to kill and slaughter them, it is rather difficult to divine. If a tiger could reason he would probably arrive at the conclusion that man was sent for his use, to be treated by him in exactly the same way as men treat sheep and bullocks. We talk about the savage nature of carnivorous animals; why, there is no one of them that can for one moment be compared in ferocity with man. We talk about our refinement, our culture, our kindness and benevolence, and other sentimental feelings, and then we slaughter every animal that we come into contact with, from the ox to the oyster, to satisfy our ravenous appetites; or if there are any animals that we do not treat in this brutal way, it is not at all out of consideration for them, but because we fancy their flesh would not be pleasant to our delicate palates. The nonsense talked about man having carnivorous teeth, is surprising in an age when physiology forms a subject of ordinary education. Man has no such teeth, nor is he in any sense of the word naturally carnivorous. The whole structure of his alimentary canal is exactly the same as that to be found in the animals next in the scale below him, and that these are vegetable feeders, no one will for a moment attempt to deny. The statement that we can't live without meat is so preposterous, that if it were not continually made in sober seriousness, it would be only worthy of being ridiculed, not answered. There is no property in flesh which cannot be obtained in larger quantities and in a form better adapted to the human system in vegetables. The nations that have exercised the most powerful influence over the world have been all, if not vegetarians, at least very nearly so. To this, I believe, there is no exception. The strongest and swiftest animals are those that feed on grain, and the men who to-day keep nearest to a vegetable diet are far superior in point of physical strength and energy to those who feed on meat. In truth, there is not a single argument in favour of meat-eating that is worth a straw. Ignorance, and that alone, lies at the basis of our dietetic customs.

The Secretary, Mr. WILLIAM H. CLARK (137 Church Street, Paddington), made an admir-

ably concise statement of the principles as objects of the society.

The Chairman then introduced "EMERITUS" Professor F. W. NEWMAN, who received a very hearty welcome from the audience, and prefaced his remarks by reading a letter from a barrister who scorned a pledge, and his own reply, in which he said he considered such pledges as those made by the members of this and similar societies were simple avowals of opinion, which could be withdrawn at pleasure.

Professor Newman strongly agreed with the stress which the chairman had laid on *habit*, as hurtfully affecting our life. Old countries, like England, suffered from it far more than their colonies. Our old institutions rose out of barbarous times and mere conquest, and, therefore, cannot help being barbarous. The enormous evils of our land tenure, caused not by any wrongfulness of existing landlords, but by the history of eight hundred years, were only beginning to be generally understood. The evil of closely built towns was in like case. Of old, the aim was to put a wall round habitations, and live packed tight like a Roman camp. Indeed, very many of our towns were originally Roman camps. In the present day the most dangerous thing that an army in the field can do, is to pass the night in dense masses. So, too, a great thickly populated city is dreadfully exposed both to bombardment and to famine from an enemy. Yet we continue, helplessly and thoughtlessly, the mischievous institutions — nay, go on making bad worse—solely because they are traditional. Just so is our habituation to butcher's meat. Such food is necessary to barbarians in a new country. It is the easiest thing to an army on march, and to roving tribes; but no nation can become populous except by raising crops. Civilisation and feeding on the fruits of the earth had always gone on side by side. To live by tame cattle was better than by hunting. To raise crops for cattle was better than to let them feed on wild grass. But to feed on the crops ourselves is vastly more economic.

We have for nearly thirty years been trying to reverse the historical course of civilisation, and go back towards an increased use of flesh meat. At the same time we have imported from a barbarous people the stupefying influence of tobacco. I rejoice, Mr. Chairman (said Professor N.), that your Society has added abstinence from tobacco in its profession! More than forty years ago, when in Turkey, I used to smoke, as everyone else there, never suspecting anything wrong; but on quitting the soil of Asia I at once abandoned the practice, and never experienced cravings for it. Indeed, the strength of a cigar always disgusted me, and its smoke offended my eyes. On the contrary the Turkish tobacco is mild, the pipe is a long cherry stick, cleaned every morning with a ramrod, so that the noxious oil of tobacco, containing the deadly poison nicotine, is kept aloof. But about 1855 the late eminent surgeon, Sir Benjamin Brodie, aroused us by his vehement attack on smoking. Great numbers of medical men now confess its deadly results. The late Mr. Selly attests that leeches, when applied to the body of an inveterate smoker, fell down poisoned. We can all see that opium-smoking and tobacco-smoking must be close akin—each drug is narcotic; each is said to *soothe;* each certainly *stupefies.* Smokers throw down burning material in the midst of combustibles, and cause countless fires by sea and land. Every year women are burnt to death in the streets by smokers throwing pipeashes on their dress. Literary smokers complain of dimness of sight and loss of appetite, unaware or thoughtless that these are among the results of smoking denounced by Sir Benjamin Brodie, Mr. Lizars, and others. Dr. Augustus Murray, who praises tobacco smoking as excellent for elder persons, deprecates it for the young. But evidently, in our present freedom, the young will emulate and imitate the elder. Fathers cannot stop their sons if they will set the bad example. Therefore, I rejoice when a Society stands up for that triple abstinence which quickly enriches the poor, abstinence from intoxicating drink, narcotism of the nervous system, and (in our present civilisation) from flesh meat. Now, as for myself, under medical advice I used to eat flesh meat largely, in fact, from the age of 41 to 62 always twice a-day, and often three times; but, when led to study the cattle murrain, I came to the conviction that it was caused by our population demanding more flesh food than was to be had naturally and healthfully. I then could not be happy without trying to go without it myself, though I did not believe I could dispense with it; but on suddenly giving it up I soon found myself the better, and I now know the reason why. It is intrinsically better, and for eight years since I am entirely confirmed in it. Now, also, I am carried on to ask, as did Mr. John Smith, of Maldon, author of the classical work on fruits and farinacea, what *right* we have to take the lives of harmless animals when it is not necessary to our life? Indeed all the cruelties of sport are probably traced to the habit of feeding on wild birds and beasts, which makes it seem lawful to disregard all the miseries inflicted by mangling or crippling them to gratify our pride of skill. Moreover, when an economist tells our poor people that they have no right to raise large families he seems to overlook that men have a right to multiply, prior to that of cows, and sheep, and swine. Economical science is misdirected. Instead of denouncing excess of men, it ought to denounce excess of brute animals and waste of human food. Waste! why, one may almost say the essence of our received high cookery is wastefulness. The topic might engage us for a long speech; but in a few words it may be shown that, so long as it is thought hospitable to make your guests eat of twenty dishes, your cook is bound to be wasteful on principle. Fancy a dinner party beginning their meal on a sound, farinaceous dish, just as nourishing as nature makes it. Their stomachs would be so satiated that they would be unable to eat more than three or four

of the other twenty nice dishes. Therefore the cook has to take nourishment out of everything, and whatever is nutritious is scolded down as *heavy*. Bread, for instance, the staff of life, is deprived of its *gluten*, which Baron Liebig and Dr. Lyon Playfair declare to be the very same chemical element as white of egg, which is the substance of the human muscle. This cordial element is taken and given to pigs, while before the rich guest is placed a roll, tea cake, or Sally Lunn—light, very light, that is, very empty of nourishment. Now, under the circumstances, this is quite right. Better to eat twenty meagre dishes than twenty nutritious ones, if twenty must be eaten. Only, I do protest, those who connive at such a mismanagement of food material have no right to turn round upon us and maintain that farinaceous food *cannot nourish* us, and that it is *deficient in albumen*.

Dr. Nichols, who has founded a Hygienic Institute in London, and relies largely on dietetic medicine in the cure of disease, also gave something of his own experience as a vegetarian. In 1834, while attending his first course of medical lectures in America, he heard also a course on Physiology and Dietetics, by Sylvester Graham, and adopted his system. The result of two years' vegetarian diet, with bathing and other health conditions, was that for five years he had not one hour's illness or one moment's pain. Few men, he thought, had performed more literary and professional labour than he had done on a modified vegetarian diet. He could scarcely remember a day's illness or of taking a dose of medicine. The experience of vegetarians in America corresponded with his own. They bore the heats of summer and the intense cold of American winters better than flesh eaters. They were far more healthy and much less liable to epidemic diseases. In Philadelphia there is a religious society of "Bible Christians," who make vegetarianism an article of faith and condition of membership. There are three or four generations, and all but the very oldest members have never tasted flesh. They have passed through two epidemics of yellow fever and three of cholera, with scarcely any loss, while thousands were dying around them. This immunity from epidemic diseases had not been confined to the "Bible Christians." All the great religious orders of the Roman Catholic Church had been vegetarians. If, in later times, there had been some relaxation of the primitive rule of perpetual abstinence, it had marked the decadence of these orders; and the more strictly the rule was observed, the purer was the health and the greater the activity of the members. It was a proverb that every epidemic stops at the door of a Trappist Monastery. But we need not appeal to the experience of individuals or communities to prove that people could live, and live well on a vegetarian diet. Three fourths of the human race seldom or never eat flesh. The great masses of the people of China, India, Japan, and Africa, live on vegetable food; and among them are some of the finest, strongest, most enduring races in the world. The peasantry of Scotland, Ireland, Russia, and of nearly every country in Europe, eat so little flesh that it is of no dietetic importance. There is no doubt that three-fourths of our diseases are directly caused or greatly aggravated by errors of diet, and all his (Dr. Nichols') experience showed that the regulation of the diet was the most important matter in the treatment of almost every form of disease. If men would live on a pure diet adapted to the requirements of the system, with other hygienic conditions, disease and premature mortality could be almost entirely banished, the earth could be transformed into a new Eden, and life filled with enjoyment.

The addresses, from eight to half-past ten, were attentively listened to and frequently applauded, and the most "riotous eaters of flesh" may welcome a reform, which, if carried out to any extent, must at least have the effect of lowering the price of meat to those who still persist in eating it, while the more vegetarians there are from choice the less there may be from dire necessity. Those who wish to examine this question, will find it discussed in "How to Live on Sixpence a-Day," "Esoteric Anthropology," "Human Physiology," and very concisely in Professor Newman's excellent abridgment of Smith's "Fruits and Farinacea the Natural Food of Man," which Dr. Nichols will send, post free, for one shilling.

DREADFUL MURDER IN GLASGOW.

More murders are committed in Glasgow than in any large town in the United Kingdom—that is to say, more people die needlessly—die violent deaths—die from unnatural causes. It may be difficult to prove the malice which constitutes murder, but the law often infers malice, and should always infer it when negligence comes from greed.

When English convicts were sentenced to be transported to Botany Bay, the Government made contracts with certain shipowners to take them at so much a-head. Half the number, some years more than half, died on the voyage. This went on, as such things do, for a long time. Who was to take trouble about the safe transportation of felons? At last the Government did move in the matter, prompted possibly by some urgent demand for convict labour at the antipodes. A slight change was made in the passage contracts. The Government engaged to pay so much a-head for all convicts safely landed at their destination, and nothing for those dropped over the ship's side on the way. The insect world has no more surprising transformation. The moment it was made the interest of the shipowners to have healthy ships, they were made and kept clean, thoroughly ventilated, well provisioned and supplied with competent surgeons well paid to watch over the health of every burglar and pickpocket with the tenderest solicitude. The result was that there was no typhus and no scurvy on these long voyages, and the mortality was reduced to three per cent. Is it improper to say that the more than fifty per cent. of convicts who, under the previous system, died on the passage, were murdered—

foully murdered in very deed? Their lives were safe enough the moment it was made the interest of somebody to save them.

And is it not just the same with that great and prosperous city of Glasgow? The annual death-rate of Glasgow is the highest of any large town in the United Kingdom. For the quarter ending March, it was 35·8 per thousand. London, with all its plague spots, has a mortality of but twenty-four in a thousand, and the town of Portsmouth, which we have heard called a dirty, debauched, drunken seaport, had the past year a mortality of only twenty in a thousand.

Only twenty! we say; but that is in comparison with Glasgow. A mortality of twenty per thousand is still double what it ought to be and might be. There is a manufacturing town in Ireland which has a mortality of only eleven in a thousand—and even this town might be healthier. What, then, are we to think of Glasgow? It is as certain as any fact can be, that ten thousand men, women, and children in that city were permitted to die last year—nay, were wofully done to death, who might have lived in health and happiness had those who are charged with the sanitary condition of Glasgow done their duty. The death of the victims of the surplus, the needless mortality of every town, lies at the doors of those who govern it. They are as responsible for every unnecessary death as the Australian shipping merchants were for the murder of the convicts by the malice of their neglect. He who does not save life when he can is a murderer. Whenever the death-rate of any town exceeds the normal standard, whatever that may be, a Royal Commission should issue and an inquest be held. The causes of the surplus mortality should be ascertained and removed. Every physiologist knows that many of our most fatal diseases are easily preventable. What, then, is the crime of those who do not prevent them?

MEN are at war with nature, with each other, and with themselves; and in this triple warfare they are destroyed with a great slaughter. They war with nature in poisoning the air they breathe, the water they drink, and the food with which they are nourished; by living in the indulgence of exhausting passions and vices, and engaging in unhealthy and destructive occupations. They war with each other by competetion, lying, cheating, corruption, seduction, robbery, oppression, slavery. Men are robbed of the soil which is their common birthright; of the stored up treasures of coal, iron, tin, copper, silver, and gold, which are the property of all; and in all our towns are robbed of needful space, fresh air, and enlivening sunshine—robbed of life itself, in being robbed of its necessities and enjoyments. And man makes war upon himself by his vices. Contented with his ignorance he does not seek enlightenment; wallowing in his pestiferous filth, he will not even wash and be clean, or open his windows for pure air; and he stupefies and embrutes himself with stimulants and narcotics—beer, spirits, and tobacco—spending on them the money that would place himself and his family in comfortable and healthful conditions.—*Dr. Nichols' "Human Physiology."*

BEAN BAGS.

WHEN Dr. Dio Lewis, the American physiologist and physician, was carrying out his system of light gymnastics for the promotion of health and cure of disease, he hit, after several experiments, upon the happy idea of bean bags, and invented a game, sport or play, more joyous and healthful than cricket or croquet—one of the most charming of exercises, and also one of the most beneficial. Bean bags strengthen the arms, expand the chest, straighten the spine, and give plenty of exercise to every muscle in the body. Bean bags educate hand and eye, and equalise cerebral force and development. One can play them alone; two make the game more cheerful; three form a spirited triangular contest; four or more increase the zest. It is a good play for indoors and rain—and exhilarating on lawn or meadow. No skill is required, and though one improves wonderfully with practice, one also does admirably the first time trying.

It is all done with bags of beans. They are thrown and caught, thrown high in air, from one to another, round triangles and circles, with right and left hand alternately, or both, varying a hundred ways. The lungs fill; the heart beats more strongly; eyes sparkle; cheeks glow. The red and blue bags make all the curves in conic sections. There are bushels of healthy excitement in every bag of beans.

We have had a heap of bean bags made and placed in one of the show windows of the Hygienic Institute. For sizes and prices, see advertisement and price list on last page.

A CANON ON DIET.—"If you wish for anything like happiness in the fifth act of life, eat and drink about one half what you *could* eat and drink. Did I ever tell you my calculation about eating and drinking? Having ascertained the weight of what I could live upon, so as to preserve health and strength, and what I did live upon, I found that between ten and seventy years of age I had eaten and drunk forty-four horse waggon-loads of meat and drink more than would have preserved me in life and health! The value of this mass of nourishment I considered to be worth seven thousand pounds sterling. It occurred to me that I must, by my voracity, have starved to death fully a hundred persons. This is a frightful calculation, but irresistibly true; and I think, dear Murray, your waggons would require an additional horse. Eh?—*Sydney Smith to Lord Murray.*

THERE are tropical countries that can sustain one thousand persons to the square mile. If we take the actual population of some of the Belgian provinces as a fair average of the capacity of land under high culture to support inhabitants, the earth might feed twenty-five times its present population. For ages to come, therefore, the population question, which has given so much trouble to political economists, is only a question of emigration, colonisation, the distribution of surplus populations, and the subjugation and cultivation of man's heritage.—*Dr. Nichols' "Human Physiology."*

IN all ages and nations of which we have record, the ghosts, or spirits of the departed, have appeared to the living.

THANKSGIVING.

Inscribed, with affectionate regard, to Charles Bell Taylor, Esq., M.D., Hon. Surgeon to the Eye Infirmary, Nottingham.]

WHO prays, can never pray in vain;
The light hath reached my darken'd brain;
Sunrise is over hill and plain;
Gone is my night of prayer and pain;
Thank God for bliss of light again.

I see the green and growing grain—
Man's life when Autumn comes again;
I see the ship upon the main,
Her silver sails without a stain:
Thank God for bliss of light again.

I see the flowers in hedge and lane;
The sheen of dew, and drops of rain;
Dear grass, white lambs along the plain,
Pink apple bloom, and golden-chain:
Thank God for bliss of light again.

I see the fog adown the plain,
The smoke of cot and railway train;
The river like a silver vein,
Blue heavens, green earth, most lovely twain:
Thank God for bliss of light again.

With soul-full rapture, I regain
Sight of the blue ethereal plain,
Where queenly night, with jewelled train,
Vies with the day's imperial reign:
Thank God for bliss of light again.

I look, and do not look in vain—
I see, beyond the summer rain,
God's bow set in the heavens again,
Lovelier than music's sweet refrain:
Thank God for bliss of light again.

With throb of heart, and thrill of brain,
I see my darling ones again:
None know my joy without my pain:
Thank God for bliss of light again;
Thank God for light, and night, and pain.

MARY S. GOVE NICHOLS.

Aldwyn Tower, Malvern, May, 1875.

CATARACT.

BY MRS. NICHOLS.

To those who have read my thanksgiving in *The Herald of Health* I think I owe some account of the loss of my sight and its recovery. Ten years ago we lost our only child, a daughter, in whom was centred love and hope. She was wise beyond her years, and exceedingly gifted and beautiful. Born of a consumptive family on my side, and at a time when my own lungs were much diseased, she was delicate from birth. Three years prior to her death we had lost our home and property by the civil war in the United States. We came to England—escaped from a country so mad with passion and prosperity as to engage in fratricidal war. We landed in London, we three, with fourteen pounds and a few articles of value, knowing no one. The hardship and confinement we endured were very severe; too severe for the young, delicate, and gifted child of our love. She died of consumption in her fifteenth year. For the first year after, I wept for her loss as if my head were waters. The second year I was not comforted, and my tears still flowed. This caused serious disorder of my whole system, which became most apparent in my eyes. My sight had always been strong, though there was congenital dimness of the left eye in my case and in several members of my family. At the end of the second year of our bereavement I became near sighted, owing, doubtless, to a change in the lens from the progress of cataract, which had not yet declared itself. My sight continued to serve me for a great amount of literary work, for we had to live by literary labour.

I had much pain in the orbit of the eyes, flashing lights often, and irritation of the brain that resulted in almost entire insomnolence. Sometimes I would pass the night without sleep, and only get an hour or two of rest in the morning. Weeks passed in this way, and I finally decided to write, as I could not sleep. This course was injurious, but I was not wise for myself as I should have been for others. I had serious disease of the liver, so that care, anxiety, the inevitable ills of life, would cause congestion and derangement of its functions in an hour; and the use of oily food, eggs, or cocoa, would produce spasmodic pain, vomiting, and diarrhœa. Often I spent sleepless nights and suffering days from this cause. I had, besides, spinal irritation and diabetes, so that blindness was far from being my greatest affliction. Loss of sight, unless from accident, is always a consequence of serious constitutional disease. Living in London, I had small opportunity for meliorating my condition. With impending blindness came a strong desire to revise my MSS. I had several novels, and a volume of other matter, which I set myself earnestly to read and correct, thus increasing my malady.

I went on with labour, suffering, and sorrow, for two years, when my husband decided to try the air of Malvern, in conjunction with such water cure treatment as seemed advisable. This had been too long delayed—the cataract went on. I had fever, and hot flushes, sleeplessness, and general debility. Under all these discouraging circumstances, after having the opinion of Mr. White Cooper, and other surgeons, as to my case being one of true cataract, I decided to enter upon a full course of water cure, with strict diet, disusing salt, and taking but two meals a-day. The fever was so great, and the sleeplessness so continued, that I often took six full baths from 9 p.m. to 6 a.m. This course would have been very injurious if the treatment had not been indicated by the symptoms, more especially the fever from which I was suffering.

I took, in the first months of my treatment, sweating packs, alternating with wet packs. I had three sweating packs and three tonic wet packs in a week. All were followed by the cold sponge bath over the whole surface of my body. I took also calisthenic exercises in a large room, as my blindness did not allow of outdoor exercise. I could only walk in a very constrained way by holding the arm of an attendant. I continued this treatment for six

months, when the skin began to act naturally and the diabetes ceased. The pain in the eyes ceased also, and the insomnolence was less. The diabetes ceased when the skin became so active that I would perspire when in a cold sitz bath. There had been much tenderness of the spine at the origin of the spinal nerves. This also became better by application of the douche in addition to the other treatment.

My improved health enabled me to bear my darkness much more cheerfully. Just at the time when I felt that the diabetes was cured, and all the other symptoms were better, I began to see light, and to distinguish colours. At first the colour came as a thought—I seemed to myself to be thinking of green, for instance. After a few days green became apparent to me. All things came out of the darkness day after day. I can never tell my joy as I distinguished more and more of the things around me—chairs, tables, the plates, and cups, and jugs on the table, the kitten at my feet, and the pictures on the wall. I was specially pleased with colours. A surgeon, who had observed my case, assured me that I did not see colours, but told them by the touch; he was, however, convinced when he held the colour in his own hand, and clear of my touch.

I changed the water cure treatment when the action of the skin was restored, taking no more sweating packs, but using a wet bandage for the night, and such baths as seemed indicated by the symptoms. My sight steadily improved till I could read large print, such as titles of books, heads of newspapers and magazines, and detached words of writing. I could not read a written line, unless the words were very large, as when small they all ran together. I could see houses a mile distant, and could walk about alone—this much I had gained in one year and a half. I had also cured a young lady with the same symptoms, and whose eyes were almost useless to her, from dimness and pain. She had nearly the same treatment that I had. I had used the proper homœopathic remedies, the 30th and 200th dilutions, which my friend the surgeon said was no more than so much dust, and the water cure, he averred, was no more than washing my face. But the result was more sight than I have ever seen any record of in a case of cataract. At the end of a year and a half, when I expected that in a few weeks I should fully recover my sight, a great grief and consequent severe illness fell on me, and in one week I was again in darkness. I was not blind as at first, but I could no more walk by myself, and I could distinguish very little; —the disease of the liver returned—I scarcely slept at all—and hope was well nigh extinguished. I, however, again entered upon treatment, and in three months I began again to see; but the gain was not rapid as before. Still, after six months of careful treatment, my health was so far improved, that I felt a great desire to engage again in the work of my life, which had been much hindered, though not entirely interrupted, by my blindness. After two years of very gradual improvement in my sight, and much greater improvement in my health, I became aware that I was not gaining at all, or if there was any gain, it was not appreciable by observation at the end of the month, as it had been formerly at the end of the week. I began to consider the prospect of sight from extraction of the lens. I spoke to my husband and family, and to a friend who was a physician of great experience—they were all unwilling to have me risk the amount of sight that I had gained, by submitting to an operation. I was convinced that I had congenital cataract of the left eye, as I had never been able to read with it. My mother had also the same condition of the left eye, and an elder sister, some twenty years older than myself. She had, late in life, cataract of both eyes, and both lenses had been successfully extracted. This was done in the United States, when I was in England, and I had not the particulars of the operation, for well-informed people have very little knowledge of the structure, functions, or diseases of the eye. The fears of physicians and others with regard to operations for cataract and other maladies affecting the sight, seem to me absurd with my present knowledge. In fact, I have never shared them, but I felt very desirous to test the efficacy of water cure in cataract, as I had tested it in other disorders affecting the sight. I was also a more persevering, and faithful, and daring patient than I could hope to have in another person. I wrought for myself and for many possible patients. My success in clearing the lens in the first instance made me sanguine of ultimate full recovery of sight. When, therefore, I found in the second instance that, after a certain very encouraging gain, I was likely to fail of my end, I was very anxious to avail myself of the skill of a surgeon. Life seemed too short to use my time with slow and partial success. Though I had gained health that was invaluable, and that would render sight of greatly more use than formerly, I began to fear that I could not recover sight without an operation. I did not like to risk what I had by employing any but the most skilful operator. I pondered the subject of extraction, but my family and friends were so averse to it, that I said very little. Just at this juncture, Providence threw in my way "Reports of One Hundred (Exceptional) Cases of Cataract Extraction," by Charles Bell Taylor, M.D., of Nottingham.

My husband was absent, but my amanuensis read the brochure to me on the evening of its reception, and the confidence inspired by the cases recorded was so great that before retiring I wrote to Dr. Bell Taylor, giving him details of my case, and asking his opinion. I also inquired what was his fee for an operation, fearing that I was not rich enough to employ a surgeon who had been so eminently successful. His reply was that I might hope for good sight from extraction of the lens, and he also said that he always deemed the fee for an operation a secondary consideration. He added that he should be willing to receive what I felt able to offer. This noble reply I felt sure was quite in keeping with the practice of one so enthusiastic and so persevering in his

efforts to serve in his profession. The result was that I went to Nottingham the Monday before Easter. I was unwilling in the state of my health to inhale chloroform, knowing that the risk to life is greater than under other anæsthetics. I mentioned my fear of chloroform to Dr. Bell Taylor, and he agreed that ether was safer. The operation was performed under ether, which was given me by the eminent physician to the Nottingham Hospital. My fear of the anæsthetic had been very great, but being under the care of one so experienced and right judging as Dr. Morris, I submitted much more willingly to inhale the ether. Everything went well. The lens was extracted and I awoke when all was over, the eye dressed, and the patient lying quietly in bed. Here I continued three days. I was then allowed to go into the drawing-room. In a week I left Nottingham by train for Malvern, and at 5 p.m. I sat at dinner in my house, having only to wear a black handkerchief over my eyes. The worst eye, the one with congenital cataract, was first operated on. In a few weeks the lens of the right eye was extracted at Malvern, Dr. Morris doing me the honour to come with Dr. Bell Taylor to administer the ether. My gratitude to Dr. Morris is very great—second only to what I feel for that humane, distinguished, and most successful operator, Dr. Bell Taylor, who needs no praise from any but his works.

I had never read with my left eye till after the extraction of the lens. It proved too weak to bear the strain of the work that I wished to do, though I was able to read and write with it.

The extraction of the right lens was attended with less inconvenience and intolerance of light than I had with the left eye. I was only excluded from light forty-eight hours, and I saw my patients as usual on the fourth day. In a week I went to church with my eyes fully exposed in a bright sun.

My sight was never so good as now. I read and write for hours, with no disagreeable feeling in my eyes. They are in all respects as serviceable as in my youth, and the left eye has a good deal more sight than at any time in my life previous to the operation.

MIND and body act reciprocally on each other. A pure, clean, unexhausted body is the tabernacle of a serene and cheerful spirit. A sound mind in a sound body is the condition of happiness. We can reduce disease to its minimum—whatever that may be—and I see no absolute obstacle to its being stamped out altogether. We can raise the condition of man to its maximum of health and enjoyment, and I do not see any limit to that maximum short of perfect health and a corresponding happiness. This can come now, as far as evil surroundings will permit—health, sanctity, peace. What comes to one may come to all. If one man can be redeemed, the whole human race can be redeemed. If one man can be perfectly, or in a high degree, healthy and happy, all may be. Like causes produce like effects. I do not believe it impossible that the will of God should be "done on earth as it is in heaven."—*Dr. Nichols' "Human Physiology."*

THE WASTE OF LIFE.

ON Christmas week, in one of the largest and richest towns in the United Kingdom, the mortality rose to fifty in a thousand; that is, people died that week at the rate of 5 per cent. per annum. The average mortality of England is a little more than two per cent., while the mortality of the healthiest districts is a fraction over 1 per cent.

What killed the victims of the surplus mortality on Christmas week? Cold, hunger, drink. In that Christian city there were thousands badly housed, poorly clad, with insufficient food, and lack of fire. To save warmth they huddled together, and were poisoned with bad air. Old people, and children, and drunkards died off rapidly. In London, one coroner held twenty-nine inquests in one day, mostly on children smothered, and aged persons and drunkards exposed to cold. In such weather people without fire or proper clothing rush to the pawnbrokers for money, and to the nearest public for gin. Drink gives a temporary warmth or insensibility to cold, but it diminishes the power of resistance.

It is a demonstrated fact that the heat of tropical and the cold of arctic regions can be best endured without ardent spirits.

A GREAT Joint Stock Association has been formed, with a capital of £3,000,000, and borrowing powers, to rebuild London. There is a very long list of noblemen for Patrons, and it has the warm approval of Her Majesty. It is time: for there are many square miles of the metropolis utterly unfit for human beings to live in—simply murderous in their filth, and crowding, and lack of light and air. Sailors *may* be drowned at sea, but people *must* be stifled in these horrid dens ashore. That it is murder to allow people to live and die in such places is shown by the fact that while the death-rate in some parts of London is only ten in a thousand, in these pestilent localities it rises to fifty. That being the case, those who die of the crowd poison are as surely murdered as if they went down in a rotten ship at sea. It is high time something was done, and we are thankful for a company. But when human lives are concerned we cannot help thinking that an omnipotent Parliament should not have waited all these years for a private company to do its duty.

CONSUMPTION:

ITS CAUSES, PREVENTION, AND CURE; WITH OBSERVATIONS ON SCROFULA.

By T. L. NICHOLS, M.D.

"Of all the fearful scourges that afflict the human race, Consumption"—I quote a writer in the *Daily Telegraph*—"is at once the most widely spread and the most inexorable. Its ravages escape our notice, because, unlike cholera, plague, fever, and other forms of zymotic diseases which sweep over the land in a sudden and sharp epidemic, and so after a while again pass away, it is always present in our midst, silently, stealthily, and surely marking out and striking down its victims."

"Consumption," says Dr. William Farr, in an official report to the Registrar-General, "is the greatest, the most constant, and the most dreadful of the diseases that affect mankind. It is the cause of nearly half the deaths that happen between the ages of 15 and 35, and in this country, during one year alone, was fatal in 50,594 cases." Taking the year 1857, we find, according to Dr. Copland, that for 420,000 deaths, in round numbers, which occurred for the whole population, one in every seven was registered as due to phthisis, while in the same year this single disease destroyed 22,000 more persons than any other single malady, bronchitis alone excepted. Ancell, the author of one of the most learned treatises on the subject, presents these appalling statistics in another shape when he tells us that, "at a moderate calculation, according to the estimated population of the earth, and the almost universal prevalence of the disease, from eighty to one hundred millions of its present inhabitants will meet with a premature death from one form or other of it. It destroys annually nearly one-sixth of the population of this country, and comprises, perhaps, one-fourth of the whole practice of physic and surgery."

The writer from whom I borrow these statements goes on to say that "the most terrible thing about phthisis is its absolute hopelessness. Hitherto every known remedy has been tried against it, and all alike have failed. Change of climate, tonics, assiduous care, and watchfulness have often palliated its sufferings and stayed its course for a few years; but the end has in all cases been the same. Dr. Williams, who has made the terrible disease his specialty, and who has a European reputation for its treatment, tells us that in an experience of 20 years' practice, during which he has taken notes of upwards of 7000 cases, he has known of only 24 to which the word 'cured' can at all claim to be applicable, and that even in these the success has been at best but doubtful. 'We have,' says he, referring to the palliative treatment, 'lengthened the period. What further? This is only a minor success—a prolongation of life. Can we claim success—a cure? It is doubtful. I can hardly say.' In a word, phthisis still remains an enemy more deadly than war, famine, or pestilence, sweeping away its victims, not by thousands, but by tens of thousands, and bidding defiance to all the vast resources of the healing art. Within the present moment 'more than 100,000 persons are suffering in England from Consumption and the allied diseases of the tubercular type, of whom 60,000 will have died within the year, leaving their places to be filled by an equal number of victims.'"

If this were all that is to be said about Consumption, I would turn to other subjects. Why waste my time, and that of my readers? If nothing more can be done than seems to have been done by doctors of European reputation, if the case of the consumptive be "absolutely hopeless," we can only patiently bear the ravages of the fell destroyer.

It is quite true that vast numbers die of Consumption. It is quite true that the ordinary practice of medicine does little to prevent, and nothing to cure. Its modes of alleviation often aggravate and hasten the progress of the disease. Anodynes and opiates, tonics and alteratives, cod-liver oil and cough mixtures, never hinder for one day the progress of the disease, and it is probable that they shorten the life of the patient.

But there is something else to be said about Consumption. It can be prevented, and it can be cured.

Consumption, like other diseases, has its causes; and when those causes are removed, of course the effect ceases. Certain conditions favour its development; and when such conditions are removed, the disease is prevented. A large proportion of persons following certain trades die of Consumption. Those who take to more healthy trades escape. The trades themselves may be made more healthful by removing the special causes of disease. In some climates the proportion of persons who die of Consumption is ten times greater than in others. There are districts of London and other large towns where Consumption is far more fatal than in others. Certain habits and vices are evident causes of Consumption. The ready means of preventing any disease is to remove its causes, or keep out of the conditions which favour its growth. To a certain extent, then—and I believe to a very large extent—Consumption is a preventible disease.

Consumption is hereditary. It runs in families. But it does not follow that it is necessary or necessarily fatal. Gout is hereditary, but a perfectly temperate life will prevent its development. The seeds lie dormant, to be brought out by some excess in the next generation. It is the

same with Consumption. A man may receive its germs from his parents and give them to his offspring, while he escapes. So, in enquiring as to the hereditary character of any disease, we must not stop at the parents, but go back at least three generations.

What is consumption? Any disease which causes a gradual wasting away of the body may be called Consumption. This emaciation comes from any suspension of the process of nutrition. All the time the matter of our bodies is consumed. The waste matter passes off by the lungs, the skin, the kidneys, and the bowels. New matter must be as constantly deposited, or we waste away. Food makes blood; from the blood all the tissues are built up and repaired from hour to hour.

A large portion of our food is converted into blood globules in the glands of the mesentery, along the course of the small intestines. When these glands become diseased so that they cannot do their work, good blood cannot be formed, and the patient gradually wastes away and dies —literally starves to death—of Consumption of the Bowels. When the air vessels become thickened with inflammation, and so coated and clogged with mucous that the air we inhale cannot get to the blood, or the blood to the air—so that the blood cannot be purified and vivified by oxygen, the same result is produced. The body cannot be nourished: the patient wastes and dies—of Bronchial Consumption. When the lungs are filled with masses of tubercles, which become abscesses, spreading more and more until they destroy a large portion of the very substance of these most vital organs, no good blood can be formed—the body wastes to a mere skeleton, and the patient dies of Consumption of the Lungs—*Phthisis Pulmonalis.*

The condition of the body which favours the development of any form of Consumption has received the name of SCROFULA; and in considering the causes of Consumption, and thereby its prevention, its best treatment, and its possible cure, we must look well at Scrofula, or what is called the Scrofulous Diathesis, as the source, condition, or early stage of the various forms of Consumption.

The term *scrofula*, is said to be derived from the Latin *scrofa*, a sow; because it is a disease to which swine are especially liable, and which they may give to those who eat them. Those who refrain from swine's flesh are undoubtedly less liable than others to scrofulous diseases. Some authors prefer the name *struma*. One form of scrofulous affection is popularly known as the *king's evil.*

Pathologists are not very clear or united in their opinion of the nature of this disease. It is generally termed a *cachexia;* and cachexia means "bad habit." Dr. Good defines a cachexia to consist of a "morbid state of blood, or blood-vessels, alone, or connected with a morbid state of fluids, producing a diseased habit." If this definition conveys a clear idea to my readers, I am very glad of it, I confess that they have the advantage of me.

Some suppose that what is called the *scrofulous diathesis*—and diathesis means habit, as cachexia means bad habit—depends upon an imperfect or diseased condition of the digestive system. Professor Dickson rather ascribes it to "improper action of the minute order of vessels, whose function it is to separate the materials of growth and nourishment, and the several secretions;" that is, the capillary system; and this idea coincides with a curious speculation of Dr. Stokes, who looks upon the scrofulous diathesis as "a condition of the human body, which is to a certain extent imperfect, and which is to be attributed to an arrest of development." Thus it is known that at a certain period of fœtal life, the whole mass of the body consists of white tissues. The fœtus is white-blooded. As its development goes on, the vessels begin to carry red blood, and this change continues up to maturity, when the red tissues are more abundant than the white. But if this process be arrested at any time, we have in consequence a lower degree of vitality.

We know how large the head is in proportion to the body, in the fœtal state. An early arrest of development should leave the head out of proportion to the body; and we find that scrofulous children have large heads, and are subject to hydrocephalus. Scrofulous children have also large bellies; and this is another characteristic of the fœtal stage. The fœtal liver is large, and scrofulous subjects have large livers. Scrofulous children have small limbs and contracted chests; both fœtal peculiarities. There is arrest of development, and these are all results of arrest or development; but what is the nature of the cause which has produced this effect?

Many pathologists believe scrofula to be a real virus, like the diseasing matter of small pox and syphilis; but experiments by inoculation do not prove it; neither do they satisfactorily establish the negative. Lugol endeavours to prove that it is in all cases the result of hereditary influences; but it cannot be denied that the same condition is often induced directly. Animals may be rendered scrofulous by being placed in bad conditions, and there is no doubt that children can be filled with scrofula by the milk of a scrofulous nurse.

I say *filled with scrofula;* and I use this form of speech deliberately. I believe that disease is more than a condition, or habit, or predisposition, or diathesis, or cachexia; all vague terms, invented by those who deny the reality of the matter of disease. There is the matter of small-pox, of measles, of syphilis, of typhus, and of scrofula. This last, like the others, is sucked in with the mother's or nurse's milk, and too often with the milk of cows, made scrofulous by confinement and improper food. It comes out in eruptions and ulcerations.

Scrofula, then, is a disease which vitiates nutrition, suspends development, and gradually destroys the system. It is the most frequent and the most terrible of all the diseases of civilisation. Its ravages begin before birth and end with death. Lugol estimates that one-quarter of all scrofulous children are destroyed before birth by spontaneous abortion. Scrofulous children swell the frightful records of infant mortality. Scrofulous infants die of convulsions, dropsy of the brain, cholera infantum, marasmus, tabes mesenterica, &c. Scrofula is a terrible complication of all the diseases of infancy, giving danger to whooping-cough,

croup, measles, and scarlet fever; and giving to diarrhœa and dysentery great fatality.

Sometimes scrofula attacks the mucous membranes, and children are affected with sore eyes running at the ears and nose, whites, worms, mucous fevers, and various intestinal derangements.

It attacks the skin, causing chilblains, eruptions on the lips, eyelids, and ears; pustules over the face, and on the chest, especially between the shoulders; and this is the source of many excrescences and ulcerations. This may be considered its most favourable form, as this gives the best chance of eliminating the disease, and casting it out of the system.

Sometimes it lies below the skin in the cellular system, and causes tubercles, abscesses, and profuse suppurations.

In the bones it causes rickets, and a rotting down of the bony structure. Sometimes the disease concentrates upon a single joint, as the lower jaw, the elbow or knee joints, the small bones of the hands, &c.; sometimes it seems to affect every bone in the body.

It attacks the internal organs and we have tubercular consumption of the lungs, the liver, and the whole mass of intestines. Scrofulous tubercles have been found in every soft organ of the body. "Tubercle," says Lugol, "is the true diagnostic of scrofula."

We cannot tell what determines this disease to one organ or tissue in one case, and to another in another. Of several scrofulous children, one may have opthalmia, another rickets, another enlargement of the glands of the neck, another some cutaneous affection, another deep ulcers, another white swelling or hip disease, another pulmonary consumption, &c., &c.; but it is all one disease—all scrofula. When scrofula attacks the lungs, we call it consumption; but we might apply this name to all its varieties.

Authors have pointed out several signs of scrofula, such as light silky hair; a thin, transparent skin; a rosy flush of the cheeks; large, moist light eyes; a thick, pouting upper lip; great delicacy and often fulness of the face, figure, &c. Where all these signs co-exist, the scrofulous diathesis is strongly marked; but it would be a great mistake to suppose that it may not exist where any or all of these are wanting. There are many signs which indicate the existence of the disease, which are very difficult to describe, but which, once seen, cannot be easily mistaken.

There is in many scrofulous families a general mark of debility, pointing out badness of organisation. I have noticed the disproportion between the head and body, the body and limbs, and the chest and belly. The limbs are misshapen; the joints are apt to be large. The two sides of the body are not evenly developed. Sometimes there is hairlip, division of the palate, and other separations of the median line of the body. The chest is bulged forward at the centre, the child being what is called chicken-breasted. Some scrofulous persons are very short in stature; others very tall. The mouth is too small, or too large; the teeth decay early. The appetite is irregular. Some scrofulous children eat very little; in others, the appetite is morbid and voracious. The action of the intestines is feeble and irregular; often with symptoms of worms. Frequently there is unnatural apathy and aversion to exercise. Even repose fatigues, and such patients are more wearied in the morning than at night. Dullness, laziness, and stupidity are often the result of scrofula. Children so affected must not be punished—they must be cured. A precocious activity and consequent retardation of the development of the genital system is a common effect of scrofula, in both sexes, and the weaknesses and irregularities of young females often have the same cause.

Scrofula is often connected with precocity of intellect, great beauty of disposition, and vivacity rather than strength of the passions.

Scrofula destroys its victims in every stage of their development. It is the frequent cause of spontaneous miscarriages and abortions. The fœtus is ejected in its early stage, because it is too much diseased for the processes of life to go on.

But besides the danger of abortion from scrofula, the child has sometimes another peril. Scrofulous women are often affected with such enlargement or malformation of the bones of the pelvis as to interfere with the process of labour, and cause the death of the child. No one has a right to inflict disease upon his offspring. If a scrofulous child be safely born, it, in most cases, carries within it the seeds of early death. Its lungs may be full of tubercles; the mesenteric glands may be diseased; the spine may have begun to ulcerate; it may fall into a shapeless mass of rickets. A bowel complaint, which some children easily recover from, is a rapid dissolution to one filled with scrofula. Whatever part is in any way diseased, whatever part is weakest, becomes the focus of scrofula. Such a child takes a cold, and dies of chronic bronchitis, or sinks under pneumonia. A little irritation causes a determination to the head, and we have brain fever, convulsions, and effusion, and death. The bowels are disordered, and there sets in an incurable dysentery. In some childish play it injures its knee, and we have white swelling, with loss of limb or life. The elbow is lamed, and there begins an ulceration of the bones, so that the joint is lost, if not the whole limb. Some trifling injury, or a simple cold, brings on terrible disease of the hip joint, and it is a cripple for life. In the same way, scrofula complicates all diseases of the internal organs, and is the foundation of all tuberculous affections, from the king's evil to the dread destroyer, consumption.

Lugol believes he has proved that scrofula is invariably hereditary. He will not allow that it is ever of spontaneous origin, or ever produced except by transmission from one or both parents; and in all cases where it appears to have arisen from other causes, he insists that there must have been hereditary taint, predisposition, or diathesis.

This, I think, is carrying the matter too far. It seems to me that the disease must exist before it can be transmitted, and I see no reason why any other part may not become scrofulous, from the operation of various causes, as well as the

germ of fœtal life. If hereditary transmission were the only source of scrofula, it would long since have died out—but this Lugol does not contend for. He admits that children may be born scrofulous, on account of their parents having had syphilis; or having been too young or too old; or of disproportioned ages or strength; or where they have suffered from certain diseases. And if scrofula comes from syphilis, and syphilis can be communicated by vaccination, as no one pretends to doubt, then scrofula in all its dreadful forms may be spread through the community by the nasty, dangerous, and horrible practice of arm to arm vaccination. I have had several cases of skin disease which I could trace to no other cause.

There can be no doubt that scrofula is, in a vast majority of cases, hereditary, but there can be no more doubt, I think, that it can be produced directly by a variety of debilitating circumstances. Typhus is generally recognised as a contagious disease, yet who doubts that it may at any time be bred in filth and misery. The itch is highly contagious; yet it may also arise spontaneously; and though small-pox and syphilis seem at present to be propagated solely by contagion, they must at some time have had a beginning.

Lugol says, parents who have recovered from scrofula, beget scrofulous children; parents who do not seem to be scrofulous themselves, but whose brothers and sisters are so, beget scrofulous children; precocious marriages, and the marriages of near relations, produce scrofulous children. In short, it would appear that any cause of debility, or any violation of the laws of health in parents, makes their children liable to an inheritance of tuberculous disease. It is in this way that the sins of fathers and mothers are visited upon their children to the third and fourth generations.

But with all that can be said of the hereditary causes of scrofula, it seems to us unquestionable that it may be developed originally, in the healthiest constitutions, by many causes:—By insufficient, or unhealthy food. Especially may it be taken into the system by eating the flesh of swine, and other diseased animals; or flesh in a partial state of decomposition; and perhaps fish and vegetables similarly diseased or decayed. It is well known, that when animals are shut up in styes, pens, and stalls, kept, as they often are, in darkness, deprived of exercise, and fed to repletion, tubercles are found in their lungs, livers, &c., and these tubercles are the certain sign of scrofula. This is the case with much of the flesh sold in our markets. It is especially the case with the cows kept in town dairies, and fed on the grains and slops of the brewers and distillers. Is it possible that the milk and flesh of these cows can be eaten, as it is every day, by multitudes, without great mischief?

By want of cleanliness, light, and ventilation. That which causes scrofula in sheep, cows, and swine, must also produce it in men, women, and children. Among the millions of the great metropolis there must be hundreds of thousands who are not thoroughly washed once a month, and many but once, perhaps, in their lives; who live in dark alleys, on whom the blessed light seldom shines; whose clothing is ever filthy; whose miserable and crowded rooms never have air fit for breathing; whose whole lives are passed in violations of the laws of health. It is in such districts that death is stronger than life; that infant mortality rises to its awful maximum; that the weekly bills become records of municipal murder.

Sedentary and depressing occupations are fruitful causes of scrofula. The body and mind demand active and varied exercise for their healthy development. Monotonous labour, in crowded, ill-lighted, and badly-ventilated rooms, as is the case to a greater or less extent in manufactories of all kinds, and even the smallest work-shops, leads to rapid physical decay. The children of factory operatives and sedentary mechanics are therefore much subject to scrofula; and are the ready prey of consumption, typhus, and cholera.

In treating of the causes of scrofula and consumption, we cannot omit the poisonings of drug medication. Every drug taken into the system, in appreciable quantity, tends to produce that condition from which springs the scrofulous diathesis, or out of which the matter of scrofula is produced, and closely allied to the drugs of the apothecary are our ordinary narcotics and stimulants—tea, coffee, beer, spirits, tobacco.

A child, with a weak constitution, and badly nurtured in unhealthy conditions is necessarily ill; being ill it complains; then comes the dosing with paregoric, to keep it quiet, to make it sleep. Some children are put to sleep with opium; some are made drunk on gin or beer, sucked with the mother's milk; some are narcotised with strong coffee; some poisoned with tobacco smoke; all drugged in one way or other. And if these poor children, with the scrofula developed, are taken to the doctor, what is done? I have seen them brought in dozens to a distinguished physician, and heard him prescribe for case after case, either *corrosive sublimate* or *arsenic*. Not a word of air, or cleanliness, or a pure diet—nothing but so much corrosive sublimate, or so much arsenic. Is it any wonder that children die?

Dr. Ferguson finds that the children of English factory operatives who have tea and coffee gain but four pounds a-year, while those who have milk instead gain fifteen pounds a-year; and that in consequence of bad diet and other bad conditions the physique of the children of operatives is gradually deteriorating.

One of the medical inspectors of the English factories, where, among the children of the operatives, the system of drugging to make them quiet, exists to an enormous extent, gives the following account of the results:

"The consequences produced by the system of drugging children, are suffusion of the brain, and an extensive train of mesenteric and glandular diseases. The child sinks into a low, torpid state, wastes away to a skeleton, except the stomach, producing what is called pot-belly. If the children survive this treatment, they are weakly and stunted for life."

Climate is supposed to have an influence on scrofula; as it is said that warm and dry climates are less exposed to it than cold and moist ones. It is true that some of the causes which produce scrofula in the latter do not exist in the former. In warm and dry climates, for instance, people have more air and light; but aside from this, I believe the disease assumes different forms, under

these different circumstances. In warm climates the skin is oftener diseased—in cold ones, the internal organs, especially the lungs. There is a great difference between living on gravel and clay; in a dry and damp house; in high and well lighted rooms, or deep and dark ones. In the high and dry regions of America, where meat will scarcely putrefy in the pure air, consumption is almost unknown, and seemingly hopeless cases recover.

The marriage of near relations; of persons of a similar physical conformation; of persons who are too young; of those of widely unequal ages; and especially of persons diseased from any cause, tends to the production of scrofula. It is asserted that it exists but little in the pure, and very widely in the mixed races. It is rare with Indians and negroes, but very common with half breeds and mulattoes. It is common among the English, a very mixed race, but comparatively rare among the purer races of Southern Europe. The laws which regulate the production of disease by crosses and intermixtures, deserve a careful investigation.

In short, every violation of the laws of health and life may be a cause of scrofula, in the individual or his posterity. There is no effect without its cause, and no cause without its effect —no punishment without sin, and no sin without punishment. "The curse causeless shall not come."

The prevention of any disease has an intimate relation to the causes that produce it. In giving the causes of scrofula, and its most frequent and fatal result, consumption, we have indicated the means by which it may be prevented, and finally eradicated.

The first step, if one had the power, would be to prevent the marriage of scrofulous persons; but as that is impossible, we must do the next best thing,—we must cure them,—but this belongs to the next section of our subject. But exceptionally bad marriages in this respect may be discouraged, and the education of the people in the knowledge that most concerns them—the laws of their own constitutions—will do much to prevent men from marrying scrofulous wives, and women from marrying scrofulous husbands; and as the product of such marriages is generally short-lived, this source of scrofula would soon be at an end.

The next point, and a more important one, is to surround every member of the community with healthy conditions. No man ought to be satisfied, or think that his country is safe, while pure air, light, a convenient dwelling, water, good clothing, a pure and nutritious diet, healthful employment, recreation, and an education, such as will enable him to make the best use of these advantages, are denied to the humblest citizen.

To prevent scrofula, we must abolish all its causes; abolish poverty; abolish filth; abolish vice; abolish misery; abolish drugs; abolish all that poisons, weakens, and degrades humanity. We must teach all mankind the laws, and surround them with the conditions, of health.

I cannot too urgently commend a simple, pure natural diet as a means for the prevention of scrofula in all its forms and developments. What I have said on food in the paper on Dyspepsia (see *Herald of Health* for August), applies no less to consumption. Whatever food makes impure blood feeds disease. Whatever makes pure blood prevents and cures. There is no doubt tubercle, and even its most malignant forms, as in cancer, can be arrested by dietetic medicine. Pure food, pure water, pure air, and plenty of sunshine—these are nature's preventions of disease, and the conditions of health, as the opposite of these are the most potent causes of disease.

Can consumption be cured? Up to a certain stage of its development, yes. When that stage is past, no. There are cases necessarily fatal. The disease may be modified; life may be prolonged; the most distressing symptoms may be relieved—but the end comes. But there are other cases—a vast number of cases—in which the disease, taken in an early stage, may be arrested and eradicated. Tubercle in the lungs, under the most favourable conditions may suppurate, be discharged, and heal, leaving only a scar which will show the dissector that it has been cured.

In all scrofulous diseases, the means of prevention are, to a certain extent, identical with the means of cure. In curing, as in preventing, disease, we must still look to its causes. If scrofula comes from hereditary taint, we cannot go back to remove that. The disease is here, and we must stop its further development, and cast it out of the system. But where scrofula is being produced originally by any of the causes mentioned above, our first duty is to remove the cause, and change the conditions.

Is a child bleaching like celery for want of light? We must take it into the sunshine, for sun-light is the light of life. Is it pining for fresh air? Send it into the fields, where it can get a new stock of the breath of life. See that every room is ventilated at all times, night and day, summer and winter.

Is its food impure or insufficient? Change it. Let the infant of a scrofulous mother have a healthy nurse, one herself fed on a pure diet, or let it be fed on the milk of a good cow. Leave greasy pork and putrid flesh, and give it pure vegetables, fruits, and country milk. A bad diet will do much to give any person the scrofula; a good one will go far to cure it by substituting good matter for bad, in the natural changes of the system.

Do not forget cleanliness. Every child that is not washed all over at least once a day is defrauded of its natural rights. It has as much right to so much cold water, as it has to air, light, and food; and a wise and good parent would as soon think of depriving it of one as the other. The skin upon the face and hands is but a small part of the whole, and there is no square inch of that skin that does not need a daily ablution.

In all cases of scrofula, the clothing must be very clean, and often changed. Under favourable circumstances, the system will be constantly throwing off diseased matter; and this must not be left to be again absorbed. No person ought to sleep in any of the clothes he has worn through

the day. This is a rule for sickness and health. —Exercise in the open air favours all healthful processes of the system, and this among the number.

These are all simple hygienic observances, which must commend themselves to every person of common sense and knowledge, and in which physicians of every school would concur, though they might forget to prescribe or enforce them; but here we part company with most of the profession. There are many indeed who have tested the uselessness of drugs and who would rely wholly on these hygienic recommendations, with sea-bathing, the shower bath, change of air, or some such hackneyed prescription. But the greater number *drug, drug, drug*, through the same hopeless and miserable routine of cathartics, anodynes, alteratives, and tonics. Now there is nothing more certain than that the usual, fashionable, and so-called orthodox modes of medication cannot cure any deep seated constitutional disease. A few years ago the doctors bled everybody for every thing, as they continue to do in Spain and Italy. The lancet has slain its thousands. Bleeding is now out of fashion.

Mercury, in its various forms was not long ago given in almost every kind of disease, and poisoned millions. Now its use has been abandoned even in cases in which it was once supposed to be a specific. For some years scrofula and consumption have been treated with cod liver oil. It is probable that any sort of fish oil is as good as that expressed from the liver of the cod; and sweet olive oil, or sweet butter may be quite as medicinal. It is a medical fashion like the rest. The newest drug for consumption is phosphorus. As a drug there is no reason to believe that it has any more efficacy than the hundreds that have been used, vaunted, and thrown aside as worthless. Opium, in its different forms soothes pain for the moment, but always aggravates disease and makes it more hopeless of cure. The simple truth is that all the drug shops in the world contain no medicine which can cure scrofula or consumption.

For such diseases there is but one method of cure. It is simple; it is natural. It commends itself to common sense. It has no magic and no mystery. Its whole operation lies in two words: Purification and Invigoration.

How can we purify the blood, and thereby every tissue and organ of the body?

By eating pure food; by inhaling pure air, and no other. So doing, we keep out external impurities, and at the same time favour the constant work of purification.

The daily bath; the exciting friction; the wet sheet pack; the hot air or hot vapour bath, when the nerve power is equal to them, bring the cutaneous nerves and capillaries and glands into great activity, and the morbid matters laid up in the body are poured out in myriad streams. Pure water—distilled water, if that naturally pure cannot be obtained — washes the blood globules, and carries off the matter of disease through skin, and lungs, and kidneys. The juices of fruit always give us pure water, and with plenty of fruit and succulent vegetables we seldom need any drink.

Bread—the pure brown bread of unbolted wheat meal, or the crushed wheat provided in our "Wheaten Groats," and in a finer form in the "Food of Health," with the addition of fruit or fruit juices, furnishes the purest, most invigorating, most healthful form of food. Here is phosphorus, in its natural combination. Here are flesh and nerve-forming elements in abundance. With such food the stomach and bowels take on a healthy action, and the processes of invigoration and purification go on together.

Now, plenty of oxygen to vitalise the blood and consume the waste. Fresh pure air in the bedroom. If it blow full in the face so much the better; we breathe the more of it, and every breath is good. No one ever took cold in bed, from the admission of fresh air, if properly covered.

Get all the light and all the sunshine you can. For all comes from the sun. It is our great fountain of light and life. Plants and animals become scrofulous if deprived of light.

Live in a dry situation if you can. A cold dry region is better than a moist hot one. But wherever you may be, the conditions of cure are a pure diet, active secretions, a healthy skin, plenty of fresh air, plenty of sunshine. Brisk exercise without exhaustion—horse exercise for example, shuttle-cocks, bean bags. Whatever will open the pores, expand the chest, and make one breathe well. Even systematic deep breathing at short intervals through all the working hours may have an excellent effect.

Baths, packs, &c., must be adapted to the reactive power of the patient. The half-pack at night wonderfully allays fever, irritation, and sleeplessness, and promotes the processes of cure. But all these points of treatment will be found in two books which every consumptive and scrofulous patient, and every one who may have reason to suspect the existence of any tendency to such diseases, should not only read, but diligently study—"Esoteric Anthropology," and "A Woman's Work in Water Cure." The latter contains the experience of one who has successfully fought off consumption through a whole life, and has also cured many other cases not less threatening than her own.

Consumption cured? When I have watched the gathering of abscess after abscess in the lungs, and seen them thrown off, and the patient each time rise to better health, and a more active and vigorous life, how can I doubt that consumption may be cured?

To give is not to waste.

Joy is the best wine.

The highest grace is Charity.

We love and serve God in His humanity.

The motive is the essential thing in all our conduct.

Never hurry—what is worth doing, is worth doing well.

There is no kind of conscious obedience that is not an advance on lawlessness.

CONSUMPTION.

The article on consumption, and its protean parent, scrofula, in this number of our journal of sanitary and social science, will be read with painful interest by great numbers who, for themselves, or for those who are dear to them, have reason to dread the fell destroyer of so large a portion of our race. But it will also give hope and happiness to many. They will find in it the simple, natural, ready means of prevention and of cure. Parents who perceive the signs of scrofula, or premonitory symptoms of consumption in their children, will know what must be done to save them. They will not fly to doctors who, if they are honest men, will not pretend that there is any hope in medicine. They will not poison the blood and nerves of their children with drugs, powerful to destroy life but utterly ineffectual to save it.

People go to doctors and swallow drugs because they feel that *something* must be done and they know no better way. The doctors themselves know no better than to bleed, and blister, and physic, like those who have gone before them. The more experience they have, and the more wisdom they gain by it, the less medicine they give, and the less trust they put in what they feel bound to prescribe. If people could read prescriptions they would be astonished at the doses they are made to take, and not less at the prices they are made to pay the chemist, who must charge roundly or he could not give the doctor his fair per centage.

But we must not be hard on doctors or apothecaries. It is a matter of demand and supply. People who are ignorant of the laws of health, the nature of disease, and the principles and means of cure must have somebody to go to in their emergencies. They take what they can find—Allopathic, Homœopathic, Eclectic, Herbalist, Quack Nostrum, which may not be the worst of the lot. And we are bound in charity to believe that each one does the best he can according to his lights. One believes in his mercurials, the other in his infinitesimals, which assuredly have the great negative merit of doing no harm, unless they stand in the way of a positive good. Let us hope that even those who get immensely rich by advertising nostrums we can see to be absolutely useless or positively injurious, do it in good faith and fancy they are public benefactors!

But whatever the scope of our charity which covereth a multitude of sins, we who seriously study the laws of life know that drugs do not cure diseases. We know that the healing power of nature alone can cure, and that all we can do is to remove obstructions and supply conditions. We can cleanse the pores of the skin and rouse them to purifying and healthy action. We can give pure air to the lungs and open the lungs to breathe pure air. We can open and cleanse the sewers which carry off the waste matter of our bodies. We can give the stomach pure forms of food, rich in all the elements of life and health. And, what is not less important, we can prohibit and remove evil agents and influences. The true practice of medicine comprehends both of the apostolic injunctions, "Cease to do evil—learn to do well."

If all who read this number of the Herald of Health will aid us in giving it the widest possible circulation, we cannot doubt that it will be the means of bringing hope and health to thousands, and of very sensibly diminishing the national mortality.

TYPHUS.

People who live on pure food, breathe fresh air, and drink and bathe in pure water, cannot have typhus, or any other fever. They need no vaccination to protect them from small-pox, if it were a protection, and are in no danger from cholera, or other epidemic. When one hundred and forty-six English prisoners were put in the Black Hole of Calcutta, one hundred and twenty-three died of the direct effect of the impure air in ten hours, and a large portion of the survivors were seized with typhus next morning. In an hospital in Dublin, in four years, out of 7,650 children born, 2,944 died before they were two weeks old. Dr. Clarke caused the hospital to be ventilated, and reduced this infant mortality from 38 per cent. to 4 per cent. The thousands that had died were killed by foul air alone. And yet, in building churches, theatres, schools, and even dwellings, the last thing thought of is their proper ventilation!

"How to Live on Sixpence a-Day."—This little book on the great subject of "What to Eat," has been reprinted in America, and translated in Germany. We have just printed an edition of 10,000, making nearly 50,000 in this country. It can now be had at every railway station, or of us, post free for sixpence.

THE NATURAL FOOD OF MAN.

In looking over the domain of nature, we find that some animals are carnivorous, or flesh-eating; some herbivorous, eating grass and foliage; some frugivorous, or fruit-eating; and a few are classed as omnivorous, eating all things. Of the carnivorse, we have the lion, tiger, &c.; of the herbivorous, the horse and ox; of the frugivorous, the monkey tribe; and of the omnivorous, the hog and some others, though the only strictly omnivorous animals are said to be the duck and the pismire. All these animals, according to the plan of nature, are adapted to their mode of life. The carnivorse are able to spring upon their prey; they have strong claws to hold it, teeth to tear it, and short alimentary canals fitted to its digestion. The herbivorous animals, on the contrary, are without claws to seize prey, have teeth for cutting and grinding, and long intestines for a protracted digestion. The fruit-eating animals have hands for climbing and pickin. fruits and nuts, teeth for biting and mashing them, and an alimentary canal of medium length. The omnivorous animals are of a mixed character and filthy habits, and seem designed to act as scavengers, to eat up what would become offensive.

Now, to which class of these animals does man belong? Not to the carnivorous, for he has neither the strength, agility, nor organs that would enable him to live on prey. Not to the herbivorse, for he can neither eat grass nor digest it. It would be neither complimentary nor true to class him with the hog; but in his form, his hands, his teeth, and his internal conformation, he bears the closest resemblance to the ourang-outang, and other animals which live on fruits, nuts, and the seeds of vegetables. It is impossible that an anatomist and naturalist can come to any other conclusion than that man is by nature intended to live on fruits and vegetables.

Linnæus says that the series of quadrupeds, analogy, and the structure of the mouth, show that fruits are the natural food of man.

Gassendi, in his letter to Van Helmont, says, "From the primeval and spotless institution of our nature, the teeth were destined to the mastication, not of flesh, but of fruits."

Baron Cuvier says, "Fruits, roots, and the succulent parts of vegetables, appear to be the natural food of man; his hands afford him a facility in gathering them; and his short canine teeth, not passing beyond the line of the others, and the tubercular teeth, would not permit him to feed on herbage or devour flesh."

Ray, the botanist, says, "Certainly, man by nature was never made to be a carnivorous animal."

Professor Lawrence says, "The teeth of man have not the slightest resemblance to those of the carnivorous animals, except that their enamel is confined to their outer surface."

Thomas Bell says, "Every fact connected with the human organisation, goes to prove that man was originally formed a frugivorous animal."

At the creation, man is said to have been placed in a garden to till it. "And God said, Behold I have given you every herb bearing seed which is upon the face of all the earth, and every tree, in the which is the fruit of a tree yielding seed; to you it shall be for meat"—the word meat in the Scripture everywhere meaning food, and not flesh, as in our perverted use of it. Adam was to have dominion over the animals, but nothing is said of his eating them; nor, in the description of the qualities of animals, is it intimated that they were ever to be the food of man. The condition of man in paradise, and the promised millennium, when the lion and lamb shall lie down together, forbids the idea of butchery.

The first man who ever ate flesh was probably driven to it by intense hunger, which has prompted men to go a step further and eat each other. Cannibalism is in reality but a short remove from flesh-eating; and the man who would devour the lamb who has been his playfellow, ought not to feel a much greater horror at eating his human companion. In reality, we find cannibals urging pretty strong arguments of taste and propriety in favour of their practices.

The early Greeks and Romans, in the heroic ages, lived almost entirely on vegetables, as have some of the bravest, strongest, and noblest races that have ever existed. The most eminent philosophers of ancient and modern times have been vegetarians; and there are a thousand facts in human history to show that a vegetable diet is consistent with the highest physical, moral, and intellectual development. It has been said that all philosophers have given their testimony in favour of a vegetable diet, from Pythagoras to Franklin.

To a man of science it seems strange that there should be any controversy on this subject. But appetite is an obstreperous arguer, and when we find men contending for tobacco and brandy, tea and coffee, in health, and the medication of a host of nauseous and poisonous drugs in sickness, we need not be surprised at their clamouring in favour of eating the flesh of animals for food.

VEGETARIAN FACTS.

By an East Indian Officer.

The following facts were communicated by an officer in the East Indian Service for a meeting of the London Dietetic Reform Society, whose proceedings were published in our last number, but they did not arrive in time for the meeting. They are, however, so interesting and important that we gladly publish them now, and shall be happy to receive similar facts for future numbers.

It is generally admitted that a diet of grain and fruits is better suited to warm climates than one composed largely of flesh; but it is supposed that the people nourished on such a diet are wanting in strength and endurance. The fact is quite the reverse. The strongest men in the world, and those capable of the greatest endurance are vegetarians. Our Indian Officer writes:—"The most remarkable instance of prolonged physical exertion that I have ever known, is in the case of the Bengalee 'Manjees' and 'Dandies'—*i.e.*—boatmen—whom I have frequently seen pulling at the oar for eighteen hours consecutively, with the exception of a brief interval for food. These men belong to a mixed race, being probably descended from the scum of the Aryan conquerors, who took to themselves wives from among the Aboriginal Dravidians. They are strong, well-built men—averaging perhaps 5 ft. 4 in. to 5 ft. 6 in. in height, and are sometimes Hindoos, sometimes Mahomedans. Their diet is composed of rice, with a small portion of fish, cooked in vegetable oil and mixed with hot spices I have never seen them eat meat—

though they may perhaps occasionally. These men have legs as good as their arms, and when going up stream, pull at the tow rope as well as they do at the oar on the tidal rivers.

"Bengal sepoys, who can always outmarch Europeans, are, as a rule, pure vegetarians. The men of my regiment who were of this class were the best marchers I ever saw, and in going lightly laden from headquarters to the first detachment under my command, 44 miles distant, never occupied more than a day. The regimental headquarters were at Dibroogurh in Assam; my first detachment was at Seehsagur, 44 miles distant; my second at Golaghat, 65 miles further on, or 109 miles in all. I have frequently seen men do it in two days, and they *never* took more than three. This, of course, was when they marched in small parties by themselves; as, when going in large detachments accompanied by much impedimenta, they took longer.

"The usual food of the men of my regiment was rice, dall (pulse of some kind), and ghee. Cunningham, in his "History of the Sikhs," mentions that after the defeat and death of the General Kworee Singh, near Peshawur, a body of troops sent by Runjeet Singh from Lahore, marched the distance of 230 miles in seven days! ! ! This march was only outdone by the Guides, who marched from Kotee Murdân to the siege of Delhi, 580 miles, in twenty-two days. Both Sikhs and the men composing the Guide Corps (Sikhs, Affghans, Pathans, Goorkhas, &c.) eat meat occasionally, but it is the exception and not the rule, it being a luxury; and I think they may fairly be classed as vegetarians, living chiefly on unleavened bread, ghee, and dall."

MEDICAL INFALLIBILITY.

People often talk, and, which is of more consequence, act, as if there were a science of medicine; as if doctors were to be implicitly obeyed; as if they were as infallible as the multiplication table. Yet every one knows that doctors disagree, and that the theories and practice of to-day may be entirely changed to-morrow. The *British Journal of Homœopathy* gives some curious examples of recent changes in Allopathic practice. Sir Thomas Watson, author of "Principles and Practice of Physic," said in the early editions of that work:—

"Of all *direct remedies* of inflammation, the abstraction of blood, or blood letting, as it is called, is by much the most powerful and important." "I cannot too often or too strongly inculcate the precept that, in order to extinguish or check acute inflammation, you must, above all, bleed *early*." "The great remedy in acute and dangerous inflammation is blood-letting."

In the last edition of the same book, Dr. Watson says:—

"What of *general bleeding*, what of venesection in particular, as a remedy for inflammation? It is in this matter, I am bound to admit, that great mistakes have formerly been made, that a potent agency has been misdirected. By abating the force of the heart's contractions, by diminishing the quantity of blood circulating throughout the body, venesection may, no doubt, lessen the quantity dispensed to the area of inflammation. But to do this to any effectual purpose, the amount of blood thus extracted must be so large as to affect injuriously for a time, or even permanently, the whole of the frame—to impoverish the blood, to weaken the reparative powers of the body, and to compromise both the present and the future well-being of the patient."

There is the same change—the same confession of grievous error as to the use of mercury. In 1857 Dr. Watson wrote:—

"Next to blood-letting as a remedy, and of vastly superior value, upon the whole, to purgation, is *Mercury*. This mineral is really a very powerful agent in controlling inflammation." "When we have to contend with acute inflammation, and desire to prevent or arrest the deposition of coagulable lymph, our object is, after such bleeding as may have been proper, to bring the system as speedily as possible under the specific influence of *Mercury*." But in 1871, all this is changed. "This estimate of the special properties of *Mercury* can no longer be maintained in the full and unqualified sense of the words which I have cited, and which expressed, I believe, at the time when they were used, the general opinion of the profession. They were too absolute. The error arose from too hasty generalisation." "The hope so earnestly cherished that the specific influence of *Mercury*, if early induced, might prove equally beneficial in common inflammation of other serious membranes of the pleura, the pericardium, the peritoneum, the arachoroid membrane—this natural hope has been disappointed . . . It cannot be relied upon for their cure, for preventing the effusion of coagulable lymph and its consequences."

Thus one supposed remedy after another is laid aside, but, in many cases only to adopt others equally futile, though it may be hoped not often so mischievous. Mercury and the lancet have murdered millions—yet millions follow with a blind faith the very men whose lives are a series of destructive blunders.

It appears by a return of the Registrar-General made to the House of Lords, that in the towns of Liverpool, Manchester, and Salford, the tradesmen class average only about two-thirds, and the labouring class not much more than half the age of the gentry. In the towns the average age of the labouring class at death, and also of the tradespeople class, is only about two-thirds of the same class in the county of Rutland. Taking 1873, the last year in the series, we find that in the towns no less than 8,394 of the 19,117 deaths —that is, nearly 44 per cent.—were of children under five years of age; but in the county of Rutland only 129 of the 417 deaths, or less than 31 per cent. Is it any wonder that labouring people should wish to be tradesmen, and that tradesmen should strive to become gentry, when inexorable statistics show that it is a matter of life and death? Read part first of "Human Physiology."

NERVOUS DISEASES,

AND SOMETHING ABOUT QUACKS.

By Dr. NICHOLS.

In the first edition of the first number of The Herald of Health I announced a series of Medical Monographs—brief essays on some of the most prevalent diseases, at sixpence each. Later I changed my plan, and decided that it would be more economical to publish them in *The Herald*, where they could be had with all its other matter for a penny a-piece. So, in the August number I gave a paper on Dyspepsia, which has been honoured with high commendation; and in September, one on Scrofula and Consumption, not less important. In this number I wish to make some remarks on Nervous Diseases which are very prevalent, very difficult to cure, and which are the occasion of abundant quackery. Wherever there is ignorance on any subject there will be scope for imposition. The world is full of quackery. There are quacks in every profession, every trade, every calling. Architects who build fraudulent, unsanitary houses, and bakers who make adulterated and unhealthy bread are quacks. Medical quacks may be no worse than some others, but it must be confessed that some of them are little better than pirates.

Nervous Diseases are the result either of some kind of poison taken into the system, or of nervous exhaustion. The poison may be that of inherited disease, or drug medication, or the ordinary narcotization of alcohol, opium, tobacco, coffee, tea, and other stimulants of the nervous system.

Nervous exhaustion may come from overwork or overworry, from premature excitement of the intellect or the affections, and notably, and in a multitude of cases, from premature and unnatural excitement of amativeness. Children of tender years, children of both sexes, left in entire ignorance, uninstructed, without watch and without warning, fall into habits which destroy health and shorten life. Nervous excitement causes nervous exhaustion. Irritations are produced which continue and aggravate the irregular and diseased condition. The exhaustion of one portion of the nervous system falls upon all the others. Brain, heart, stomach, lungs, may become the seat of disease.

And doctors do not cure. The ordinary drugs may stimulate action and remove obstructions. An emetic empties the stomach, a cathartic stimulates the action of the bowels, an opiate produces insensibility; but no drug can give vital force to the exhausted nervous system, and restore the wasted energy of health. The common practice of medicine fails utterly in these cases, and, as a natural consequence, sufferers seek relief. "Where the carcass is the vultures gather."

Almost every country newspaper one takes up contains three or four advertisements inviting people to send for medical pamphlets or advice gratis. In some cases persons professing to have been "cured of the results of youthful error" are anxious that others should profit by their experience. Curious to see the *modus operandi* of these philanthropists, I wrote to one of them, and received by return of post the following *lithographed* letter, which I print *verbatim*, omitting name and address:—

"Fulham, London, S.W

"Dear Sir,—Yours came duly to hand; in reply I beg to say I have spent over £100 with various impostors, and feel determined to break up their swindling, and provide nervous sufferers with a simple means of cure. I send enclosed descriptive Circular of your disease; read it carefully, and, if afflicted, enclose me the price of Prof. ——'s Patent Mechanical Cure and Pills. I paid the following named Quacks from £1 to £10 each:—Walter Greenfield, Jn. Butler, Drs. Kahn, Lacroix, Brown, Harvey, Bright, and several others that advertise, and spent 25s. for a case of Sir Astley Cooper's Vital Restorative, and tried every Electric Appliance that was advertised, and all failed to give me any relief. I was told by a Physician to try Prof. ——'s Cure and Pills. I paid him £2 2s. for them. I began to rapidly recover, and gained in flesh from 9½ stone to 11 stone in 2 months. Being desirous to aid my fellow-sufferers, I have made arrangements with the Professor to furnish his Cure and Pills to all who need them at a little above cost price—11s. 6d., my consciousness of doing good being ample reward for my own time and trouble. My afflicted friend, do not despair—you can be cured.

"I am,

"Your sympathising Friend,

"————."

With this lovely document came a badly printed, staring handbill, headed in large letters—

"STARTLING DISCLOSURES!

OVER

30,000 YOUNG MEN

Going to Premature Graves Annually in the United Kingdom by Youthful Error and its Consequences.

Prepared for the perusal of both sexes, and especially commended to the attention of those whose constitution has been impaired by youthful excesses."

Following this are two columns of paragraphs in small type, evidently taken by some ignorant person from a collection of quack pamphlets, and confusedly jumbled together; and containing the most terrifying descriptions of the worst forms of nervous diseases, ending with an urgent invitation to send exactly 11s. 6d. to the philanthropist at Fulham, with this cunning addition—

"*N.B.*—Twopence extra must be sent with each order to pay postage."

"*P.S.*—I feel so positive of curing you that if I fail after six weeks' trial, you can enclose me the Instrument by Post, and I will cheerfully refund your money per return Post."

Another advertisement invites invalids to write to a Reverend person at "Zion House," &c. A letter and penny stamp brought a printed letter of illiterate rigmarole, recommending another London quack, and "disinterestedly" advising nervous sufferers to send him two, three, or more guineas for a galvanic belt, which would be dear at sixpence, considering its cost, and which is utterly worthless for any purpose of cure. No combination of zinc and copper wire *around* the body can send a galvanic current *into* the body. The pretence that it can is absurdly unscientific. No doubt an actual galvanic current may be medicinally useful—but what can be the use of an apparatus which generates no such current, and which cannot possibly have any effect upon the diseased organism?

It may be said that any one fool enough to send 11s. 6d.—and "twopence extra," to a transparent humbug and impostor—believing that a "mechanical cure" and a box of "life pills" "will perform a certain *and* positive cure of the worst cases in from four to six weeks," or that the money would be returned—or who sends two or three guineas for a worthless galvanic belt, deserves to lose his money. Not so. The sins which cause these diseases are in almost all cases sins of ignorance. Children and young persons are not instructed in the laws of life. They do not know the nature or the consequences of the most seductive and dangerous errors. If they are so ignorant as to fall into such evils, what is to protect them from these mercenary quacks who prey upon their sufferings, and rob them remorselessly under the terror of exposure?

That there are great numbers of sufferers from such waste of life I have had abundance of evidence; and it is proved by the number and rapacity of the quacks who prey upon ignorant credulity, and the sums they spend in advertising. In most cases such patients shrink from consulting the local practitioner or family physician: and it is a sad truth that when they do consult them they are in many cases none the better for such consultation, and too often they are worse, getting advice which is equally contrary to science and morality. Stimulants and tonics will not cure nervous exhaustion, nor will the indulgence of an appetite repair the mischiefs caused by its abuse. The one thing wanted in all these cases is to teach the patient the laws of life—to show him the cause of the evil, and the only real remedy. Nature alone can cure. Remove the causes of disease, observe the conditions of health, and the "*vis medicatrix naturæ*"—the healing powers of nature, will do the rest. Something can be done to facilitate and to expedite the process—to remove obstructions and allay irritations. There are natural stimulants of vital action—things which help and do not hinder. There are nerve elements which can be assimilated in the food specially adapted to the cure of nervous debility. Our grand resources in these, as in other diseases, are PURIFICATION and INVIGORATION. We have three great vital organs to attend to, in order to reach the centres of life—the skin, the lungs, the alimentary canal. By these we purify the blood and cleanse the whole system—by these also we supply the elements of a vigorous vitality. How this is done I have shown in the books reviewed and advertised in the HERALD OF HEALTH, and specially in the July number—in "How to Live on Sixpence a-Day," in "Human Physiology," and in "Esoteric Anthropology," particularly, and "A Woman's Work in Water Cure;" in which are given such instructions for self-treatment and self-cure that in ninety cases in a hundred no other help will be required.

I have given a letter from the jackall of a quack: here is one which I received a few months ago from a gentleman of education and position—a Doctor in Philosophy, and an ardent philanthropist. He writes from Lincolnshire:—

"A young friend of mine residing in London had the misfortune to consult quacks about a serious disease, and spent many pounds in searching an imaginary relief. At last one told him that all the others had been wrong, but that *he* would effect a perfect cure for £20! My poor friend wrote to me in despair. I sent him your various works; he commenced the hydropathic treatment and lived on sixpence a-day. Now, sir, I have the pleasure of announcing to you that he is *completely cured*, happy, merry, and proud. Not a penny has been taken from him, and his only drugs were *water* and *vegetables*. This cure appears to me so striking that I cannot help bringing it to your acquaintance. Since his diet has been reduced to the modicum of sixpence a-day, his appetite is normal, his digestion perfect, and it is a pleasure to see and feel in his letters the joy of his newborn heart."

A gentleman writes from West Hartlepool;

"A youth here has been perfectly cured by following the instructions I gave him from your 'Mysteries of Man.' It did not cost him a farthing; and he had paid £5 for medicine, with no permanent benefit."

Among the extracts from private letters given in the July number, will be found several others which point to the same fact—that the natural—the physiological remedies, are the only ones to be relied upon for the prevention of disease, the restoration of health, and the assurance of that "good estate of body" which is above "infinite wealth."

I have written, revised, stereotyped, published, and strongly recommended these books, because they teach people, in the simplest, purest, best way I have been able to contrive, first, how to avoid and prevent diseases, and then how to cure them. If people would learn what they teach, they would enjoy perfect health from the cradle to the grave. There is no real need of one hour of pain or illness in the longest life. This is a wor' \ of law, in which effects depend upon causes. Those who know the causes of disease can generally avoid them. I who write these lines have not had a serious illness in thirty years. I have consulted no physician and taken no medicine. But for the exhaustion of over-work, I can see no reason why I might not outlive the century. And I see no reason why all men and women, not already

incurably diseased, or suffering from fatal lesion of some vital organ, should not attain to and enjoy perfect health. By perfect health, I do not here mean a high degree of strength, vigour, force of life, but freedom from disease—a regular and painless performance of vital functions, and an equable and natural enjoyment of life.

Health is the natural condition of man, as it is of every organised being. Pain, disease, suffering are morbid, abnormal, unnatural, unlawful. Nature tends always to healthy action. Air, water, light, the electric, magnetic and aromal elements and forces, are all life-giving. Vital action is curative. A wound heals of itself—a broken bone unites. No medicine can aid the process, and the best surgery can only facilitate and supply conditions. Good food and good air make good blood, and good blood mends up and restores bone, muscle, nerve, and brain—every organ and every tissue.

It is in this way, and in this way only, that the results of nervous exhaustion can be cured. No doubt the nerves lie deepest and nearest to the spirit-life; but if good nerves are needed to make good blood, good blood is also needed to make good nerves.

"While there is life there is hope." The case of an eminent member of a recent government—this is the fashionable round-about method, but of course I mean John Bright—is full of encouragement. Perfect rest has restored him from the nerve and brain exhaustion of over-work to almost or quite his accustomed vigour. *Rest*, for him as for thousands, was the one thing needful. Unhappily for great numbers, rest is the last thing that can be obtained.

We must do what we can. The processes of water cure, adapted to the reactive power, wonderfully hasten the two great elements of cure—purification and invigoration. The late Lord Lytton broke down at forty, went to Malvern in the palmy days of Wilson and Gully, and was restored to vigorous health, and died the other day, after a life of literary and political labour, past seventy. With only a little economy of life, Charles Dickens might have gone on twenty years longer, and have written twenty delightful volumes. He burnt his candle at both ends, and his light was suddenly extinguished.

One word as to medicines. There are two specially adapted to cases of nervous exhaustion. One is phosphorus, the other sulphur. Nature has provided both in convenient doses—the phosphorus in wheat, and notably in such preparations as our "Wheaten Groats" and "Food of Health," while most of it is left out of the common bread of the bakers. Sulphur exists in its most assimilable form in eggs, but more than one egg a-day is an overdose, and may do mischief.

Every patient should try to understand his own case, and know what to do, and why In one case in a hundred, perhaps, there may be some need of special advice. All want wisdom, faith, patience, and perseverance—the great gift of longanimity.

THE ENGLISHWOMAN'S REVIEW OF SOCIAL AND INDUSTRIAL QUESTIONS. Trübner & Co.

A NEAT little sixpenny monthly, edited, written, and printed by women for women—Englishwomen, if you please, but not intended to exclude the others. It is an awkward thing for a country to have no name. One cannot say United-Kingdomer. Britisher don't help the matter.

And why, and oh! why, dearest ladies, do you fill so much of your cover pages with what uncharitable people call quack advertisements? Do you believe that there is a medicine "sold in bottles 1s. 1½d. each," which will cure bowel complaints with one dose, typhus with two doses, diptheria with three doses, and so on? Do you believe that any cough elixir "improves digestion and strengthens the constitution?" Do you believe that quinine wine "restores delicate invalids to health and vigour?" What would the "women medical practitioners" (another awkward phrase) whose cause you so ably advocate, answer?

THE July number of the HERALD OF HEALTH contains several columns of extracts from private letters about our books and work. Here are a few more evidences of appreciation:—

"Food of Health is really delicious."

"I received samples of your Food of Health and Wheaten Groats, and am greatly pleased with them."

"I have tried your Food of Health, and I think it a most valuable and pleasant article of diet, much more likely to suit English people's tastes and stomachs than oatmeal. The Wheaten Groats are excellent, and much better than some I got from America."

"Your 'Esoteric Anthropology,' like the 'Human Physiology,' is admirable throughout, and ought to have a *world-wide circulation*."

"I have much pleasure in recommending your useful works to many friends, rich and poor, who fully appreciate their value after a trial of the diet you prescribe. Could it be adopted by the majority of our population, they would be greatly benefited in health and purse."

"I have read your masterpiece, and *magnum opus*, the 'Human Physiology,' with great delight and profit. It is an excellent book. I shall do my best to make the *Herald* and your books and food known."

"I find your books and food, the knowledge they give and the health they bring, much better than paying doctors' fees and taking their nasty medicines."

"I cannot refrain from expressing my gratitude to you for the knowledge I have gained from your inestimable works, 'Physiology' and 'Anthropology,' and thank you most sincerely for all the pleasure and instruction I have derived from your works."

These are fair specimens of what we receive constantly from intelligent ladies and gentlemen, and we give them here simply that they may bring good to others.

THE FOOD SUPPLY OF ENGLAND.

By DR. NICHOLS.

ONE-THIRD of the wheat consumed in England is imported from abroad. All the sugar comes over the sea. English markets are filled with foreign fruits—oranges, grapes, raisins, prunes, dates, &c. Cattle, sheep, and pigs, are imported in considerable numbers—bacon from America, and canned meats from Australia. The adjacent shores of the continent—France, Belgium, Holland—send us myriads of eggs, chickens, rabbits, butter, cheese, and vegetables. It is a curious thing that Belgium, the most densely peopled country in Europe, and to a large extent a manufacturing country, competing with Manchester in cotton, and with Sheffield in iron, should yet be able to make large exports of food, and to feed the very artizans with whom she is competing in their own markets! For Belgium sells coal in London, and sends iron-work to Sheffield. Will our politicians and political economists deign to take these facts into consideration?

And why should it be left to the cottagers of Normandy to supply us with eggs and honey? as if English cottagers could not keep chickens and bees. And with all the land of England, Scotland, and Ireland to cultivate, why need we bring our food from more densely peopled foreign countries? There may not be a likelihood of a war in Europe that will involve England, but there is always such a possibility, and while Europe is one great camp, and the revenues of nations are expended upon military organisations and preparations, it is hardly safe to rely upon the continuance of peace. And how can England go to war with countries on which she is dependant for her bread and butter?

America can feed England at a pinch. She can send over vast quantities of maize, flour, beef, pork, and apples. One American State could produce food for fifty millions of people; and there are dozens of such States. But commerce with America might be interrupted. In 1812 the edict of an American President closed every American port to British commerce, and laid an embargo on every ship engaged in it. We hope and trust that such an event may never happen again, and we rejoice that during our lifetime no hostile shot has ever been fired between the two countries.

Leaving these matters of high politics, we come to the consideration of the Supply of Food; a matter so interesting and important, that we ask for what we are about to say, the earnest attention of every reader. There is no matter so serious. Food is the second necessary of life. Air first, then food. And pure good food is the condition of health, energy, and every kind of well-being. Good food makes good blood, good nerves and brains, clear thought and noble action. The physical, mental, and moral character of a nation depends more upon the kind of food the people eat than our philosophers have imagined. The Esquimaux live on blubber; the Arabs on dates; the North American Indians on game. It is the food they eat and the air they breathe that makes the differences we see in the different classes of English people. Crowding and bad food are stunting our town populations. One can see everywhere the effects of beer and bacon, and tea and tobacco. A grand movement has been begun to give people more light and better air, and conditions of cleanliness and decency. What is wanted now is the supply of cheap, wholesome food—free from adulteration, and full of the elements of healthy, vigorous life. If people had really good food they would not fly to the substitutes for food: sedatives, stimulants, intoxicants. If the food of people was pure, nourishing, healthful, satisfying to taste and appetite and physical requirement, they would not feel the craving they do for beer, spirits, and tobacco. These are but miserable make-shifts. When body and mind are full of vigour; when the blood is pure and the nerves tingling with life, we want no stimulants.

Let us see what is wanted. First of all, good bread. We raise and import the finest wheat in the world, and then deliberately spoil it. We sift out and throw away, or give to cattle and pigs, the richest and most important elements of the king of cereals. The fine flour of wheat makes the dry, chippy, flavourless, constipating baker's bread. The bakers often whiten it more, and make it more astringent and unwholesome with alum. They weaken its alimentary value by over fermentation. The miller has deprived it of a large part of its gluten and phosphates.

Brown bread, made of whole wheat meal, containing all the nutritive elements of the grain is, beyond all doubt, the best form of human food. On it alone a man can live in vigorous health. Wheat, coarsely ground and made into porridge, is not only a delicious food, full of life-giving elements, but a cure for many diseases. Wheat, by other modes of preparation, such as we have used in making our "Wheaten Groats" and the "Food of Health," not only contains all its nutritive flesh-forming and brain-invigorating, purifying and energising properties, but actually acquires a remarkable mucilaginous sweetness and delicacy of flavour developed in the processes of its manufacture.

It is highly important that our great populations should be supplied with good, sweet, healthy bread, and the best preparations of the finest cereals, at moderate prices. We find a constantly-growing demand for such food, and could beneficially as well as profitably invest a large capital in the supply of a demand, which our writings on health are rapidly increasing.

Next to the "staff of life"—bread, in which we may comprehend all the cereals—in importance is the supply of fruit, not as a luxury for

the rich, but as a large portion of the daily food of the great masses of the people. Apples, pears, plums, apricots, peaches, grapes, dates, tomatoes, berries, &c., are not only delicious to every unperverted taste, but they all contain the finest elements of nutrition. They are rich in albumen and sugar, or the elements of sugar. Fruit juices wonderfully purify the blood. They are the best medicines for many diseases. Fruit alone will cure scurvies, skin diseases, and blood poisonings which defy all the drugs of the pharmacopœa. All children should have an abundance of fruit. Instead of being a luxury, fruit should be a staple food for all classes.

How can this be accomplished? Last autumn the most delicious grapes were selling in the streets of New York for three-halfpence a pound. One can buy grapes in Paris which have paid the *octroi* for threepence a pound. But we will undertake to supply all England with the means of enjoying the grape cure all the year round, at a price not exceeding twopence a pound.

Here is a lesson. French prunes—dried plums—are to be found in all the markets of the world. You see them in the shops of London, NewYork, San Francisco, Melbourne. They are *only* dried plums. Now, there is no lack of plums in England and elsewhere, only no one has thought of drying them and making them an article of commerce. All fruits can be dried in the same way. But who ever saw an English dried apple in a grocer's window? You see Normandy pippins however, and pay a round price for them when you want a tart. In the same way the French make the delicious Roquefort cheese, of which they export 4,000,000f. worth a year, and which brings the highest price in all the markets of the world. And this luxury of cheese is made from the milk of the sheep. What Englishman ever thought of milking a sheep? And what wonder that the French, who send us eggs, honey, cheese, prunes, pippins, and sardines, which swarm on our own coasts, only that we never cure them, can pay war indemnities. and grow rich in spite of so many wars and revolutions?

Butter has come to be almost a necessary of life. Our bad bread demands it, to make it eatable. But what do we get for butter, and what a price do we pay! The adulteration of butter has gone so far that it turns the stomach to think of. Butter is made in immense quantities, no atom of which was ever in milk. And a large portion of what is genuine is so badly packed and handled that it becomes uneatable. The foot-and-mouth disease is now raging in the midland counties, and on great dairy farms they are obliged to bury the milk as soon as it is drawn from the cows. Butter can be found in immense quantities in Ireland, Germany, Austria, and the great dairy States of America. It is only a question of packing, transportation, and preservation. It is quite possible to bring fresh sweet butter from Australia. And it is possible also to provide cheap vegetable oils, pure and fragrant, to answer all the ordinary purposes of butter.

Eggs are composed of albumen and oil. They are pure concentrated nutriment. One or two eggs a day give all the animal food that the system can require. The importation of eggs into England is enormous, counting by millions. The price varies very widely. Eggs can be bought in China for a shilling a hundred. They are cheaper in Poland than in any country in Europe—and, of course, dearer in England. In America they used to sell for threepence a dozen. In California, during the gold-fever, they sold from five shillings to ten shillings each. Everywhere in this northern hemisphere eggs are comparatively plentiful and cheap in the spring, and scarce and dear at Christmas. In all markets they double or treble in price. They are never dear in the spring, nor cheap in autumn.

It is evident that if one knew how to keep eggs for six months he could about double all the money he could invest. Let him pack £10,000 worth of eggs in April, and he could sell them for £20,000 in December. He could store £100,000 worth with same result. Nor could any such amount perceptibly affect the market. If the eggs were purchased and packed in Poland or China, the profit would be much greater.

Now, it is perfectly possible to preserve every kind of egg for a very long period. Insects' eggs are so preserved by natural or instinctive processes. Seeds are the eggs of plants, and we know that their vitality is preserved, under certain conditions, for centuries. Any egg can be preserved—how long we cannot say, but certainly for years. We have seen eggs boiled, and open as sweet and fresh as if laid but a week, which had been packed in a box more than two years. Every naturalist knows of processes by which eggs can be perfectly preserved. But the trouble has been that these methods are not practical. They cannot be applied rapidly, at a cheap rate, and on the largest scale. It has been left to the ingenuity of an American to discover and perfect a process which can so be applied on any scale.

By another method, as I have already intimated, butter can be gathered fresh and sweet, wherever it is most plentiful, and stored here in London for any necessary period, which, with the usual demand, need not be long. So salmon and cod could be brought from Nova Scotia and Labrador, not boiled to rags in tins, but fresh as on the hour they came from the waves. So with beef, mutton, and poultry.

And fruit. Here is a way of making fortunes beneficially. The most delicate fruits can be kept for months; the more hardy ones for years. The finest apples of New York and Ohio, or of Bavaria and Hungary; the finest grapes of European and American vineyards—can be stored, and perfectly preserved, at so small a cost as on small quantities to be inappreciable, and sold every month in the year. Such apples as the Newtown pippins could be supplied the year round.

Another American invention is, for the great masses of the people, far more important. It is a method of drying all kinds of fruits and many vegetables so rapidly, that a great quantity can be preserved before it can spoil, and so perfectly, that it is not changed either in colour or flavour. The dry fruit loses, on an average, about 80 per

cent. of weight, and about half its bulk. After a year, or five years, you add the proper quantity of water, and it comes back to the exact consistence, colour, and taste of the fresh fruit, with only this difference: in the rapid process of drying there is a super-ripening action which converts a portion of the fruit into grape sugar; so that some apples, for example, preserved by this method, made into tarts, require only half as much sugar as if they were fresh. Otherwise no difference can be perceived. All fruits and vegetables are really improved by this drying process; and fruits and vegetables which will not bear transportation in their natural state can in this way be distributed over the world. By these methods all the navies of the world could be supplied with fresh eggs, fresh vegetables, and excellent fruits for the longest voyages.

But all this is of no value if it be not reduced to practice. There must be enterprise enough—and there is surely money enough—in England to carry these admirable discoveries and inventions into practical operation. I propose, therefore, with such co-operation as I can secure, to form a Limited Liability Company, or several Companies:—

1. To supply good bread, and other farinaceous and leguminous preparations of the best quality, and at moderate prices.
2. To import, preserve, and distribute fresh fruits.
3. To purchase and work the patent for the preservation and packing of eggs.
4. To purchase and work patents for the preservation and transportation of butter, fish, meat, &c.
5. To dry fruits and vegetables on the American system, as now practised in the Eastern States, in California, and also, as will be seen, in Australia. By this process the finest fruits of Europe and America may be supplied in any quantity, and the fruit crop of England prepared for use, or to be manufactured into jams, preserves, &c. Every maker of jams can see the immense utility of such a system—putting his stock into the best condition, developing sugar, and enabling him to carry on his manufacture the year round.

The following paragraphs will show what is doing:—

"The Australians find fruit-drying a very easy process. At the North-Western Province Society's Show, recently held at Carisbrook, a miner residing at Adelaide Lead exhibited samples of five different kinds of dried fruits—namely, plums, grapes, apricots, peaches, and apples, all of which were so good, that he was awarded a special prize for each. Some of them, dried five years since, when tasted, had all the flavour of new and good fruit. We hope samples of these may soon find their way to our English markets."—*Garden.*

"Curing Fruit.—By many new processes which of late have been brought into use, the business of curing fruit is becoming quite extensive in California, and it can be enlarged indefinitely. Figs, grapes, currants, peaches, plums, blackberries, &c., may be thus preserved, and there is the wide world for a market. The vineyards and oliveyards of California may be drawn upon to an almost unlimited extent. This new industry will eventually become one of great commercial importance to this city and State. Many 'drying' factories have been established during the past year, and have proved so profitable that preparations are on foot to greatly enlarge this new field of enterprise during the coming season."—*Resources of California* (Newspaper).

Of course a Company formed here to carry out the fruit supply in all its branches would get consignments from all great fruit-growing countries. Southern Germany could supply an immense quantity—so could Spain and Portugal.

We shall be glad to hear from all persons interested in this work, and especially from those who are willing to take stock and aid in the necessary organisations.

WHAT WE EAT FOR BUTTER.

The county analyst for Hampshire says there is an establishment within one hundred miles of the Bargate of Southampton where bone manures are made. The bones obtained from slaughter-houses, knacker-yards, and the old bone men, are boiled down; and the large quantity of fat which naturally rises to the surface is skimmed off and thrown into tubs; when cool, it forms a dark brown grease, having a most offensive odour, and a taste—well, nobody yet has been found with sufficient courage to test its flavour. This vile mixture is sold to wholesale butter factors, and many tons per annum are thus disposed of from the works in question. When this fatty substance has been subjected to certain cleansing processes, and is amalgamated with genuine butter, an analysis would simply show the presence of some foreign matter, but would not show that the compound was deleterious to health.

Some time ago we were told that butter was made from the mud of the Thames—that is, from the matter of sewage. There are great butter factories which work up dripping and suet. Does any one know what becomes of the fat skimmed from the cauldrons of the cat's meat merchants? Genuine butter is very scarce and very dear, and British and Continental tradesmen are very ingenious. The French, it is but just to say, carefully watch, and severely punish, such offenders. Heinrich Heine said—"God listens with more complacency to the swearing of a French trooper than to the praying of a London trader," and the sarcasm would be well deserved if all were like too many.

Mais, revenons à nos moutons. It may be mutton, or beef, or pork, for aught we can know about it, and the analyists are none the wiser. A chandler was summoned before a London magistrate the other day for selling adulterated butter. Dr. Bernays, of St. Thomas's Hospital, was examined, and stated, as the result of his analysis, that "the fatty acids were found to be 94 per cent., whilst in genuine butter they were but 84 or 85

per cent. *He doubted whether it was butter at all*, though there was nothing deleterious in the mixture." If Dr. Bernays did not know what it was, and doubted whether there were any butter, how could he know there was nothing deleterious? The trouble is that animal poisons defy chemical analysis. They are only known by results. No science can discover scrofula or syphilis in vaccine matter. No chemist can detect the virus of hydrophobia.

ENGLISH COOKERY.

THE *Daily Telegraph* had a leader about New Years, on a Vegetarian Christmas dinner at Manchester. It was an abundant, varied, and rather luxurious dinner, which cost sixpence a-head. We have shown in "How to Live on Sixpence a-Day" that good dinners can be had for half the money, but let us hear the *Daily Telegraph*:—"We are blessed with the most splendid vegetables in the world, and, as a rule, we dress them abominably. Not one cook in a hundred can make an omelette, or has ever heard of *œufs sur le plat*, or of the American 'scrambled' eggs. We make marvellously good cheese, which we devour in lumps, instead of grating it and using it in the preparation of dainty dishes. We do not know what to do with our mushrooms. There are at least a hundred ways of dressing potatoes; and we have three—boiling, mashing, and frying—and not one plain cook in fifty can fry potatoes. Of the culinary use of lentils, haricots, chick-pease, and Indian corn English cooks are almost entirely ignorant. A rational and appreciative course of vegetarian experiments, carried on at a season a little more suitable to the system than Christmas seems to be, might result in the discovery that, while a large proportion of the community rarely obtain any butcher's meat, another section eat so much as to be afflicted with chronic dyspepsia; while, in the matter of preparing vegetables for the table, our obstinate ignorance, carelessness, and wastefulness have made us the wonder and laughing-stock of foreign nations. Let us have a Vegetarian Society in London by all means, if only that the people may be taught what enjoyable dishes are *macaroni au gratin*, stuffed tomatoes, fried *salsifis*, potato *purée*, *polenta* of Indian corn and oil, omelettes *aux fines herbes*, cauliflowers and grated cheese, eggs *au miroir;* roasted, boiled, *sautéd*, and curried mushrooms; fried turnips and bananas, and carrot puddings; minced cabbage *à la pauvre homme*, onions with brown and with sharp sauce, and patties of lentils and shalot."

FOOD and water, cleanliness, clothing, warmth and air—these are the regulators of health, the importance of which, as a branch of human physiology, and political economy, can scarcely be over-estimated at the present time. Of what use is scientific knowledge of those circumstances which favour the production of national wealth, or of the laws which determine its distribution, in the absence of a sound mind in a sound body?—DR. HITCHMAN in *"The Crusades."*

COMPOSITION OF FOODS.

MANY vegetables, such as peas, beans, and lentils, contain far more nutrition than any form of flesh: and, if the percentage of nitrogen be adopted as the standard of nutriment, are to be considered far more nutritious. While a nitrogenous diet is necessary to sustain the body in full energy, a diet too rich in nitrogen entails upon the secretory organs too much work, the excess of nitrogen requiring to be eliminated by their means. In the vegetable kingdom we have every kind of food, from succulent fruits and vegetables containing a large percentage of water, to nuts and cereals consisting almost entirely of solid matter. Fish, flesh, and fowl are similar in composition, and are rich in nitrogen. But it is an error to suppose that these animal substances contain more nutriment than many cheap vegetable products. We may conveniently arrange our principal vegetable food-stuffs into the following groups. The term

CEREALS

is applied to the seeds of grasses cultivated for human food. They contain a large percentage of starch, nitrogenous compounds, and phosphoric acid.

Wheat, the most important of all cereals, is specially adapted for breadmaking. Bread made from whole meal contains a large amount of salts which are specially rich in phosphoric acid. The bran portion of whole meal is not only valuable for its phosphates, but contains also a nitrogenous body which greatly assists in the digestion of the bread. *Macaroni* is a preparation of wheat.

Barley contains less nitrogen than wheat, but more starchy matter, and in this respect is similar to rice. Barley bread is more compact and heavy than wheaten bread. With an equal bulk of wheaten flour it will make good bread. Deprived of its husk, and rounded, it becomes pearl barley, and in this form is serviceable for soups and puddings.

Rye contains more nitrogen than barley, but is not so well adapted for making bread as wheat, though so largely used by the Germans and Dutch for this purpose.

Oatmeal is particularly valuable as a food. It contains more nitrogen than any other cereal, with a very large percentage of starch and sugar. It contains more than 90 per cent. of nutriment. The coarsely-ground meal is best; made into a porridge, it is one of the most valuable dishes we have.

Indian Corn, or *Maize*, is rich in nitrogen, and in this respect ranks next to oats. It is a cheap and nutritious food when ground and well cooked in porridge or baked into cakes. The starch of maize, sold as corn flour, is expensive, being a manufactured article; besides, it only represents the carbonaceous constituents of the grain, and, containing no mineral matter, can add nothing to the bones. Infants fed on corn flour grow up rickety. It makes nice puddings or blanc mange.

Rice is the least nitrogenous of all grains. It is a good addition to bread, and is especially serviceable to combine with highly-nitrogenous foods, such as peas, beans, and lentils. It is particularly adapted for invalids, as it is one of the most easily digested substances known.

PULSES

are the seeds of leguminous plants (the pea tribe). They are the most highly concentrated of all foods. The nitrogenous element predominates.

Lentils contain 29 per cent. of nitrogenous matter, whilst lean beef contains only 19 per cent., and fat beef much less. They are easily cooked by simmering in water after a few hours' soaking. Served with jelly, or apple sauce, they are delicious. Or uncooked fruits, as figs, dates, &c., may be used, to ensure more complete mastication.

Peas are also very nourishing, containing nearly as much nitrogen as lentils. They ought to be eaten with bread, rice, or some other carbonaceous food. They require to be well cooked. Split peas are the most useful for pea-soup or peas-pudding. The best way to cook split peas is to simmer them for a long time with a little water until a paste is produced; in this state they are easy of digestion and very agreeable. Green peas are more nutritious than any other succulent vegetable. Broad beans, French, and kidney beans, are similar in composition to green peas.

Haricot Beans, like dry peas, are rich in nitrogen. When cooked till soft, they are easily digested. Boiled haricots left in a warm oven for some hours develop a peculiarly agreeable flavour not noticeable in the freshly-boiled beans.

SUCCULENT VEGETABLES,

from their marked anti-scorbutic properties, are of special service to mankind. Were it not for the large quantities of them consumed by flesh-eaters, disease would be much more rampant among them. They supply the salts of the blood, deficiency of which results in scurvy.

The *Potato*, the most important and nutritious vegetable of its class, contains only 25 per cent. of solid matter, consisting for the greater part of starch, with little nitrogen. Other succulent vegetables, such as

Parsnips, *carrots*, *turnips*, *artichokes*, *onions*, *leeks*, *cabbages*, *asparagus*, etc., contain less solid matter than potatoes, the solid constituents varying from 8 to 17¼ per cent.

RIPE FRUITS rarely contain more than 16 per cent. of solids. Grapes contain 16 parts of solid matter in the hundred; apples, 14 parts; whilst in raspberries, blackberries, and plums the solid nutriment falls to 8 parts. Dried fruits, such as figs, dates, and raisins, contain a large amount of sugar, and are decidedly nutritious.

NUTS—as hazel nuts, almonds, Brazil nuts, and chesnuts, contain a large amount of oil and nitrogenous compounds. They are highly nutritious, but require to be thoroughly masticated. It would be quite possible to live entirely on fruits and nuts combined; ripe fruits being rich in saccharine constituents, and nuts being distinguished for a large percentage of nitrogen. We instinctively appear to combine the two when we eat raisins with our almonds.

THE FUNGI, or MUSHROOMS, on an average contain 96 per cent. of water. They are more valuable as flavouring agents than as foods.

SUGAR and TREACLE consist entirely of respiratory matter. Sugar contains from 4 to 10 per cent. of water; treacle, on an average, contains 23 per cent.

ARROWROOT should be a pure starch, and therefore free from nitrogen. It contains no mineral matter for the bones, and can only be used as an auxiliary to other foods. Sago and Tapioca are practically identical with arrowroot.

OLIVE OIL is particularly useful. When pure, it has no objectionable taste or smell. On toasted bread, with a little salt, it is scarcely distinguishable from butter, and may be used instead of butter in making pastry.

TEA, COFFEE, and COCOA, cannot be considered as true foods. They are nerve stimulants only, and, when used largely, produce all the evils of over-stimulation. The aliment of a cup of tea or coffee is in direct proportion to the amount of sugar and milk added. Cocoa is generally mixed with sugar and starch, and thus diluted, it contains a smaller amount of the stimulating alkaloid.

THE COMBINATION OF FOODS.

With grains and fruits we can build up and sustain our bodies in the highest health. We should combine alimentary substances different in their composition. If hard work be undergone, and muscle food needed, peas, beans, and other highly nutritious substances should be eaten. It is useful to remember that all fatty, starchy, and saccharine substances are heat-giving and fat-forming. Such foods are largely consumed in winter.—*Dietetic Reformer.*

MONEY.

THERE is a vast accumulation of the power of hoarded labour, or concreted vital force—money, in short, in England, just now. There is more than people know what to do with. The banks can give but one per cent. interest. Capital lies idle seeking good and safe investment.

But money is power, and those who have power should try to exercise it wisely, so as to promote the greatest good. Any investment, it may be said, employs labour, and does good. But surely there may be some choice. There is some difference between opening a public-house and so enlarging the circle of drunkenness, poverty, disease, and crime, and in establishing some work of healthful industry, or demolishing fever dens to build model dwellings. It is plain that a man may invest money very profitably to himself, perhaps, in what may cause demoralisation and death. A gaming house or a grog shop may pay large profits; so may rotten ships that go down at sea, and rotten houses that breed typhus on shore.

Is it not time that men should have some conscience in their use of wealth? The money drawn from slavery was said to be stained with blood. What shall we say of money drawn from drunkenness, prostitution, disease, and death?

There is no need of such investments. No man is compelled to a partnership in crime. There are profitable investments in works of health and plenty, purity and happiness. What can be better than to give men, women,

and children healthful work in making the land fertile and beautiful? It needs but labour well bestowed to treble the agricultural products of England. It needs but the wise union of capital and labour to make every town as healthy as some towns are. Money rightly used would save the lives of millions; just as money badly used now destroys whole populations. If one manufacturer can keep the death-rate of his people down to eleven in a thousand, why not others? If one man can transform a barren tract of land into a fertile farm which produces sixty bushels of wheat to the acre, why not others? If one man can make orchards and gardens, that employ thousands of women and children, and give him a handsome profit, why not more? Why import fruits, vegetables, eggs, to the amount of millions, when thousands are pining in want, for lack of the very labour that would produce them? Why should women and children starve in the fœtid dens of London, sewing for sixpence a-day or less, when they might be working healthfully and profitably in groves and gardens, among fruits and flowers?

O men of wealth, look at this London—look at this England. Are there not victories to gain—are there not worlds to conquer?

A GOOD NOTICE.

We make no apology for transferring to our own columns the following very nice notice of our best book, from the last number of the *Social Science Review*, from which we have also copied several valuable and interesting paragraphs:

Human Physiology the Basis of Sanitary and Social Science. By T. L. Nichols, M.D. London: Trübner and Co.

The task which Dr. Nichols set before himself when commencing this important work covered an extensive range of thought, and was beset with difficulties of no ordinary kind. To write a comprehensive treatise on physiology, in all its varied ramifications has been attempted by comparatively few individuals, and fewer still have succeeded. In the book under notice we have a clearly written practical work, free from technicalities, enabling every reader to understand the present condition of human society; the structure and functions of the human body; the laws of health; the moral and social nature of man, and that state of morals and constitution of society which will secure his highest earthly good, and his greatest happiness. The first part treats of the statistics of disease, preventible and premature mortality, poverty, ignorance, and crime. A number of terrible facts are produced illustrating the vices of modern society which could be almost, if not entirely, exterminated by a closer attention to the physical constitution of man. We surround ourselves in a great measure by artificial circumstances, and adopt habits and modes of life which are absolutely in antagonism with all the essentials of a healthy and happy existence. We fruitlessly endeavour to escape from *results*, without bestowing the slightest consideration upon the *causes* that lead to them. It is impossible thus to evade our obligations, and Dr. Nichols, in trenchant and telling language, lays bare the social cancers and points out the remedies. In another portion of the work the author defines and illustrates matter, force, and life. Speaking of the latter he says:—

> Matter and mind are governed by general laws, and universal analogy is the law of matter and of life I place under a microscope a dozen points of matter, cells filled with a liquid, all looking alike, and all composed of the same kind of matter—carbon, hydrogen, oxygen, nitrogen—all made of albumen and fibrine; all alive; but differing from each other, not in matter or form, but only in the quality of life. In that quality of life—in the subtle element which adheres to, or presides in or over each globule, is the directing force, the guiding intelligence, which will accomplish its development, and make it what it is to become. . . . The same matter is moulded into a thousand forms, by the varying character of that which presides over matter, and directs form and manifestation. And this is what I have chosen to call life, which is to force what force is to matter.

The various forms and operations of life—vegetable, animal, and human—are discussed, and the special features distinctly noted. From this we naturally glide into the description of the human body and its important organs and functions, of sensation, thought, feeling, and will; the building up, sustaining and repairing of the system, together with the phenomena and laws of life and death. The concluding portion of the volume is that upon which the greatest differences of opinion will arise, as it touches many debateable questions relating to human rights and responsibilities, social theories of society, the occupation of land, and other kindred topics. It is impossible, in a brief notice, even to mention the many interesting features of this useful book, but we hope to refer to some of them on a subsequent occasion. We feel bound to admit that Dr. Nichols has succeeded in accomplishing the work he contemplated, and has produced an exceedingly readable and instructive book, every page of which contains facts and arguments that merit serious consideration. Unlike many works of a scientific and philosophical character, it is written in a style that is at once simple and elegant, and so clear withal, that he who runs may read.

In order to love mankind expect but little from them; in order to view their faults without bitterness pardon them. The wisest men have always been the most indulgent.

THE WORLD'S REFORMERS.

We wrote, many years ago, for an American periodical, a series of biographies of men who have laboured to reform the world. It began with Pythagoras, and ended, as far as we remember, with the now almost forgotten French Communist, Cabet. Several new names must be added, if we decide to continue the series.

The admiring readers of *Fors Clavigora*—a work we shall have something to say about before the world is much older—know what are the views of that eloquent art critic, and, as we believe, profound critic also of political economy, Mr. Ruskin, as to the means by which England might be transformed into a garden of beauty and joy.

As a contrast to the picture presented by Mr. Ruskin, the philanthropist artist, here is the idea of Mr. Riddell, a no less philanthropic civil engineer. Mr. Ruskin would banish steam and machinery from the world, which, truth to say, they now hideously deform. Mr. Riddell, on the other hand, would have steam and machinery make us all rich, healthy, and happy.

The whole of the future, he says, is contained in this, that steam-power must be reapplied on economical principles, in accordance with modern science, for the benefit of the people. Fashions are utterly to cease, for only in this way can machinery act economically. Every new fashioned thing involves new processes, tools, methods, handling, packages. Necessaries of life for al nations are the first thing to accomplish. The truth, the whole truth, of present and future salvation is in the above. With it we shall get rid of disease, poverty, death, crime; and only in this way. Hand-labour is to be almost wholly abandoned.

VEGETARIANISM AND TEMPERANCE IN THE BRITISH ASSOCIATION.

CURE FOR DIPSOMANIA.

Mr C. O. Groom Napier read a paper at Bristol on Vegetarianism as a cure for Intemperance, which may be worthy of the attention of Good Templars and other reformers. Twenty years ago, Mr Napier said, he read in "Liebig's Animal Chemistry"—

"That most people found that they could take wine with animal food, but not with farinaceous or amylaceous food. He was at that time a vegetarian, and he felt in his own person the truth of this statement of Liebig, as did also some members of his family, who, after becoming vegetarians, had no inclination for alcoholic liquors, although brought up to their moderate use. He was induced thus to inquire whether vegetarianism might not be a valuable cure for intemperance. Having applied it successfully to 24 cases, he would briefly give the results. One person, aged 61, of a Scotch aristocratic family, had contracted habits of intemperance in India. His habit was to eat scarcely any bread, fruit, or vegetables. His breakfast was mostly salt fish and a little bread; his dinner consisted of joint and very little else; and he consumed during the day from a pint to a quart of whisky, and was not sober more than half his time. He was induced to return to the oatmeal porridge breakfast, and adopt a diet for dinner of which boiled haricot beans or peas formed an important part. About this time his wife became so alarmed as to the consequences of the cattle plague, that all the family were put upon a vegetarian diet. The husband grumbled very much at first, but his taste for whisky entirely disappeared, and in nine months from the time he first commenced eating largely of beans, and two months from the time he became an entire vegetarian, he relinquished alcoholic liquor entirely, and had not returned to either flesh or alcohol. The author also instanced the case of an analytical chemist, aged 32, who was given to intemperance, but who, on having his attention drawn to Liebig's statement, was induced to adopt a vegetarian diet, and, following up this, before six weeks he was a total abstainer. As other instances, he mentioned a lady of independent means, a clergyman, a country gentleman, a girl of 19, a man and his wife and sister (all over 40 years of age), a bedridden gentleman (cured in 36 days), a captain in the merchant service, a half-pay officer, a clergyman and his wife, both of intemperate habits, who were cured by a diet mainly farinaceous. A gentleman of 60 had been addicted for thirty-five years to intemperate habits, and his constitution was shattered. After an attack of delirium tremens he was induced to adopt a farinaceous diet, which cured him in seven months. He was very thin, but his weight increased 28 lbs. Two sisters, members of a family noted for intemperate habits, adopted vegetarianism, and were cured in about a year. A clerk who had lost several situations through intemperance was cured by vegetarianism, and was taken back by an employer at a higher salary than he had ever received. A governess, aged 40, lost her situation through intemperance, and was cured, by adopting a farinaceous diet, in nine weeks. Two military pensioners were cured in six months. Three old sailors were cured in like manner in the same period. The author then mentioned various articles of diet which he regarded as specially antagonistic to alcohol. These were: macaroni, haricot beans, green dried peas and lentils, soaked for twenty-four hours, well boiled with onions and celery; rice, and highly glutinous bread. The author stated that he had himself found his health benefited by a vegetarian diet, and all whom he had induced to adopt it had received similar benefit. After pointing out the increased economy of this diet, he recommended those who had a distaste for it to try sea-side or mountain air. He then alluded to the increase of national wealth which would arise from the employment of land now growing barley for other purposes; and added that nations living on a farinaceous diet are less given to drunkenness than meat-eating populations."

Dr Bigg said that when the Creator gave men teeth equally adapted for vegetable or animal food, He no doubt intended them to be used. He had made man omnivorous, &c., &c.

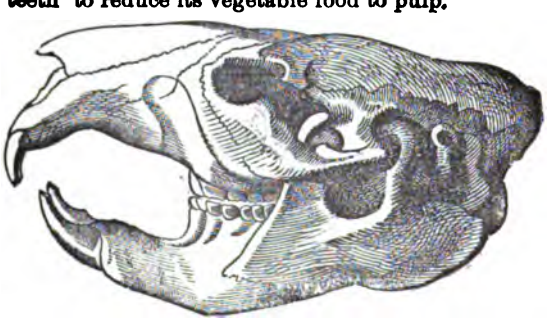
Those who read the September Number of the HERALD OF HEALTH, can form some idea of the anatomical and physiological acquirements of Dr Bigg. A monkey can learn to eat beef steaks: so, for that matter, can a horse; but no physiologist will pretend that monkeys or horses are omnivorous. Hogs are; and some men resemble hogs in their habits if not in their anatomy. It is quite true that the Scotch and Irish take some whisky at odd times, but it would probably be found that those who drink the most do not habitually live on a vegetable diet. It is also true that in the countries of Continental Europe, where people live most on bread, fruit, and vegetables, drunkenness is almost unknown. There may be drunken vegetarians, but we have never happened to know one.

INDICATIONS OF THE TEETH ILLUSTRATED.

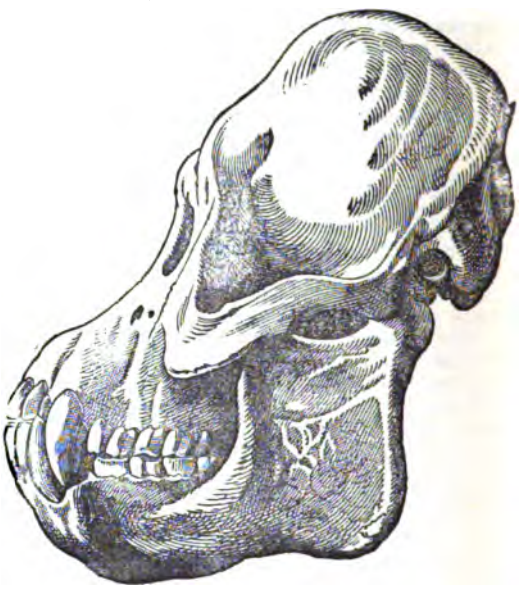
EVERY carnivorous or flesh-eating animal has organs expressly formed to catch, hold, rend and devour its natural food. Here, for example, is a typical skull of a carnivorous animal, with its long, sharp teeth made to seize and hold and tear, and its sharp serrated side-teeth, to cut and divide—



In strong contrast with this is the skull of the Beaver, with its front teeth like chisels, to enable it to cut down trees and pull off their bark, and its broad, grinding and mashing teeth to reduce its vegetable food to pulp.



The animals whose teeth, digestive organs, and general anatomy most nearly resemble those of man are the frugivorous or fruit-eating animals. Here is the head of the highest of this species, the Orang-Outang, and the principal difference between its teeth and our own is the stronger development of what are called the canine teeth, which some have supposed to indicate man's carnivorous propensities,—



In striking contrast to all these skulls we give here a human cranium. Compare, for a moment, the brain of man with that of those sagacious animals, and then observe the teeth. There is nothing carnivorous about them. They are more evidently adapted to eating fruit than those of the monkey tribes, the highest types of the frugivorse.



HOW I BECAME A PHYSICIAN.

I HAVE been from my youth of a restless temper or temperament. As a lad, I wished not only to be head of my class, but head of the school. Whatever any boy could do, I wished to do, and to do better than any one else; this kept my powers always on the stretch. I sat up nights; I neglected exercise; I pored over my Greek till I was no longer an Englishman, but thought in the tough old Hellenic tenses. I worked out problems till I was a walking Euclid. I have spent the night over a problem with a patience and perseverance worthy of a sister of charity; and I have worked at a copy of Greek verses till the paper seemed to my excited optics to be one blaze of light.

This I did as a boy, what would I be likely to do as a man? I will tell you. I took to authorship and attics, and served my apprenticeship to a crust without beer, and a bed without blankets. Finally, I made a "hit" with a political pamphlet, and got a place on the staff of a daily paper. I was "a man of mark." Lord Redtape was grateful for my timely advocacy of his favourite measure, and his balmy breath wafted me into the place I had long prayed for as easily as if I had been thistle down. How I blessed my patron, and how efficiently I served him, may be guessed from the fact that I was soon the centre of that powerful system, *The Daily Looker-on.*

The heart is not of more importance to the circulation of the blood, or the pineal gland to the brain and nervous system, than I became to "our party." Day and night I wrought at my desk, and "devils" were my familiars. "Copy, sir," said an imp with an evil name, and I worked on as if I were a machine. My apprenticeship to poverty and failure had been very bitter, and had not prepared me properly to bear success. The mere fact of success was an exhilaration far beyond wine or strong drink, and my nervous system was as much taxed by it as by my incessant labour.

The first and greatest misery attendant on my success was sleeplessness; I say the greatest, because it was the parent of so many more. In the few hours I dedicated to repose, I courted sleep more sedulously than lover ever courted the coyest maiden. Just in proportion as my spirit longed for the renovation of rest, my excited brain refused for a moment to be quiet. When I lay down, there was a rushing, roaring sound in my ears; and when I rose, it was a ringing worse than Bow bells. At first, I thought that the roaring sound came from the street; it seemed like the tramp of life along the great thoroughfare on which I lived. But I soon observed that when all the world outside was hushed and asleep, the roar and tramp continued to thrash against my throbbing brain. Then there seemed a band of iron bound tightly around my head, and pressing intolerably against my forehead. Then I became dizzy when I raised my head from my pillow in the morning, which was not removed till I had smoked a cigar or drunk a cup of coffee. Next came dimness of sight and vertigo when I stooped and rose again quickly. The morning was my worst time. I was weary as death when it was time to rise, and it was not long before I never left my bed till I had taken some one of my accustomed stimulants. When the day was well begun, I could work till a late hour; indeed, I dreaded to stop. My hours in bed were most miserable, and I often wished that sleep had never been invented to mock me.

At last it occurred to me that I was going on badly, and must have advice. I acted on my resolution as hastily as I had made it; I just spared myself time to call on a very skilful physician on my way to a dinner given by my noble patron.

"My dear sir," said I, "just give me something to steady my nerves for this evening."

"Your nerves!" said the doctor; "you should leave nerves to the ladies."

"I wish I could," I answered, "for they have leisure, and I have not. I am in the greatest possible haste now, but I am afraid my head will fail me to-night, and I really cannot spare it at the present crisis in public affairs, to say nothing of my own private need for it. The fact is, I have got a bad habit of being dizzy at times, and"—— Then I hastily ran over the symptoms I have detailed.

The physician listened attentively, and not mechanically, remarking, when I ceased speaking: "You sum up a case well; you do not waste time;' and then he was silent till I was impatient; and, with a hasty and uneasy movement, I said: "Well!"

"You must stop all brain-work, and go into the country and rest," said he.

I laughed in his face. "*I stop*, and go into the country and *rest!*" I exclaimed. "My dear sir, the thing is simply impossible. I am head, brain, heart, and centre of *The Daily Looker-on.* If the centre fails, what is to become of the circumference? I leave you to calculate the consequences if I should stop; for though I took high honours in mathematics, I cannot tell how much two and two make, and I am not sure that I could count my fingers correctly."

"And yet you keep on taxing your brain, and stimulating to keep up to your work, with seven signs of apoplexy, which you have just detailed to me."

"Seven signs of apoplexy?" said I with a start, for I was deeply shocked, as the doctor intended I should be. I put a piece of tobacco into my mouth. I always did this when I felt uneasy, which was some dozens of times in a day.

"Yes, seven signs of apoplexy," said the doctor, "and that tobacco is the eighth, and worse, for you screw yourself up to your work with that, and increase all your bad symptoms."

"But the seven signs?" said I.

"A band of iron across your forehead, a rushing or roaring sound in your ears, dizziness, dimness of sight, or entire loss of vision when you stoop and rise again quickly, a blaze of light on your paper when you write in the night, sleeplessness, the obliteration of your mathematical power, which used to be great, and the necessity for stimulants, in order to work at all. I tell you, you must stop, and go into the country and rest."

"Rest!" said I bitterly. "My dear sir, I tell you I am to dine at Lord Redtape's to-night. I am expected to talk, and to talk brilliantly. At twelve to-night, I shall write a leader for to-morrow. When all this is done, I will think of what you have said; but I cannot spare time even to think of it till to-morrow;" and I gave him my hand with a guinea in it.

"To-morrow may be too late," said the man of science sorrowfully.

"Do not frighten a fellow to death," said I cheerfully; "and do take time to tell me the cause of this rushing and roaring sound in my ears.

The doctor smiled. "If I take time to tell you, I suppose you will take time to listen," said he.

"I would almost lose my dinner to learn the cause of my torment—rush, rush night and day. I like to rattle over the hardest pavement, because it somewhat drowns that horrid sound in my head. Just explain it, doctor, and consider me your debtor everlastingly."

"You expect me to explain a complex scientific problem, when you do not know the alphabet of the science," said the doctor; "but I will try. Roaring in the ears is caused by the weakness, and consequent relaxation of the carotid artery. The size of this artery depends on the contractile power of the nerves that belong to its coats. When these nerves are weakened, the artery is relaxed, and becomes expanded, and the current of the blood surges against the bony structure of the mastoid process. This process shields the auditory nerve, which is spread out in its internal chambers, and the roaring sound is produced by this great current impinging on the mastoid process, from the relaxation of the coats of the artery. In its normal condition, the artery just clears the process, and we hear nothing. But when one's nerves are weakened, as yours are, great irregularities occur in the circulation. Rest, my dear, sir, will restore the integrity of your nerves, and your eye will cease to exaggerate light by means of a diseased optic nerve, and your ear to be tormented with the rush and roar of your own blood, surging against an excited auditory nerve at every pulsation of your heart."

"Very curious and interesting," said I, thinking more about the doctor's explanation than my own disease. "But I must be off to this tiresome dinner, my dear doctor;" and I rather unwillingly said "Good-day."

I remember very little of what occurred at the dinner, except that there seemed a bright light around the head of a lady who sat opposite to me, and dark spots with bright edges floated before my eyes. I was told long afterwards that I never talked so well, or made so many brilliant points as on that evening, and that just before I left I blazed up in such a superb manner, that Lord Redtape said to Sir Frederick Bluebook: "That man is the phenomenon of the age—the right man in the right place. He makes me hold my breath while I listen to him."

I wrote a leader that night that was like the sound of a trumpet at a triumph. I went home to my lodgings at a late, or rather earlier hour. It was a warm night, and no fresh breeze fanned my hot face as I came out into the air. I felt as if my blood were molten lead, it was at once so hot and so heavy. I was glad to divest myself of dress garments, which are never comfortable except when one is under the eye of the public. I was glad to lie down, for I was too heavy to carry myself. With my windows broad open, and a single linen sheet over me, I fell asleep. I awoke with a sensation of cold, as if I were frozen to death. I tried to raise myself, thinking I would draw up the bedclothes that lay across the foot of the bed. I found that my right side was immovable. I put my left hand over to my right hand and arm, and felt them. The hand and limb, and indeed the whole of my right side, were as though they were the members of another person, and not mine at all.

One side of my tongue would not move. The whole right half of my body was as useless to me as if made of marble. I had *Hemiplegia*—this is, half of me was palsied. A vegetative life went on, but there was no power in the voluntary muscles. My will had ceased to be a commander over one-half my material members.

The servant came up with coffee at ten o'clock, as I had bidden him, when I came in. He rapped, but as I could make no answer, he went away. What would I not have given to be able to call to John as I heard his receding footsteps! But the slightest sound was beyond my ability; I could only move my left hand and foot. I could still think, and there seemed no halfness in my thoughts, but there was a heaviness even in my anxiety, and I suppose I fell asleep. I awoke, or recovered my senses, I never knew which, with a feeling as if I had been stabbed, and saw a gentleman withdrawing a lancet from my arm.

"Ow black it is, and honly two drops!" said John, who was holding the bowl. Again I felt the sting of the lancet; but no blood followed its insertion. What is to be done next?" thought I. I do not remember thinking again till I heard a rich, deep voice say: "He will revive; he has young blood in him."

"What would you advise, Sir Joseph?" said a voice which I knew belonged to the person who had stabbed me. "It is impossible to bleed him."

"And not necessary," said Sir Joseph. "He should be taken to a Malvern Water-cure."

"What!" exclaimed the stabber in astonishment, if not in anger, "*do you* advocate quackery?"

"*No, sir*," said the man of mark emphatically; "but the indications in his case can be better fulfilled there than anywhere else. Obstructions must be removed by perspiration, and the douche will be the best tonic in his case."

The great man who was not frightened at words, and who could see Philosophy in so-called empiricism, was obeyed. I was carried to Malvern. For thirty-six hours, I was alternately sweated and bathed. I was first wrapped in blankets, till profuse perspiration was induced, and then in this vapour-bath, from my own pores, I was sponged off with cold water, rubbed dry, and then again enveloped in blankets for another sweating. For thirty-six hours, this treatment was pursued; and at the end of this time, I could slightly move my right hand.

"Bravo!" said the doctor; you shall rest."

And I did rest, and sleep. For hours my weary body and soul rested in a dreamless Elysium, of which I was only occasionally conscious for a moment, when a wet napkin was laid on my forehead.

During three months I was sweated and douched, and ate black bread, and not over-tender beef, and never once saw tea, coffee, or tobacco. At the end of the three months, I left Malvern with the use of all of myself, except that I could not pick up a pin with my right thumb and finger, though I could grasp a friend's hand heartily. I suspect I could not have written a leader in my old, elegant, plain chirography. But I had no chance of attempting this, for during my absence, some one had stepped into my place on the tread-mill of daily journalism, and I was no more missed, or wanted, than the fifth wheel of a coach. It is said that no man is ever missed in the great economy of Providence; and certainly that was my case in the small circle of what I had considered great affairs. The individual who had succeeded me was "the right man in the right place," and for aught I know, Lord Redtape held his breath when he listened to *him*.

I was left at liberty to confirm my health by good habits, and to gain a new position by ability or good-fortune. I had begun the study of human physiology with my own brain and nervous system; I continued it with a zeal born of suffering, and a humane and compassionate sympathy, founded on

a knowledge of what my fellow-creatures were suffering all around me from ignorance of physical laws. Providence had spared my life, and I resolved to dedicate it to the service of that most unfortunate class, the literary and the learned, who know nothing of the laws of life and health, who ignorantly destroy both, and then look to the physician to create them again by some miraculous power, which does not exist in science. The patient must co-operate with his physician, and both must co-operate with the laws of God in the human constitution, or it is as vain to expect health to succeed disease, as it was to pursue the chimera of the philosopher's stone or the elixir vitæ.—*Chambers's Journal.*

DR. GULLY ON MEDICAL FASHIONS AND STIMULATION.

We were interested to notice the other day in a work by Dr. Gully, entitled "A Guide to Domestic Hydro-Therapeia, the Water Cure in Acute Diseases," the following passage:—"Perhaps my office in this work is rather to suggest than to warn. Yet whilst on the subject of that special condition of the nervous system which generates the symptoms of hysteria, in its slowly suffering as well as in its fiercely explosive shape, I cannot refrain from an allusion to, and a warning from, that fashion of alcoholic stimulation which has, of late years, taken possession of the ordinary medical treatment. If it had novelty in it, one would, as a medical practitioner, be bound to try it; for it is wicked—no less—and stupid moreover, in one who professes to have studied all methods for the relief of his employers, to pass over any plan because it squares not with his prejudices, or because it would give him trouble; but the plan of stimulation has been tried again and again since the time when tipsy Browne first introduced it nearly a century ago, and has always been abandoned after the fashion of it ceased. If it had success, it would not only be practised in paroxysms, but would, long ago, have established itself as the permanent plan of treatment for all diseases involving nervous irritability; but whether the stimulation come in the shape of whisky toddy, as it did under Browne; of port wine in the early part of this century; of bitter ale, twenty years ago; or of rum and milk, brandy and eggs, stout, champagne—anything containing alcohol and jumbled altogether—as of late under the regime of Dr. Todd; in all or any of these forms there is not a record of success which at all justifies the wide-spread application of alcohol to maladies of the nervous system. And when it comes to pass that sufferers from these maladies, wearied with increasing rather than decreasing distress, at length abandon the stimulation of alcohol and seek that of water, then they discover how much time and how much vitality they have expended in the ridiculous attempt to make crutches do the office of flesh and bone legs, to make a cruel spurring of the jaded nerves do the office of rich and well elaborated blood, which can only be made out of animal and vegetable matters as nature produces them.

"Let it be remembered, too, that the more the stomach is stimulated by alcohol, the less desire it has for blood-making food, and the less power of converting it into blood. It would be a hard task for any alcoholic practitioner to show that the bottle of brandy, the five or six bottles of port wine, even the dozen of ale, which he orders his nervous patient to consume in a week, contain materials for a single tea-spoon of blood after their elaboration in the stomach. If it be asked how such a system is accepted, the answer is that sickness is always ready to fly to a treatment which gives the least possible trouble, and requires the least possible exercise of self-denial; which tallies with its usual prejudice on the subject of being 'supported, nourished, kept up' (the ordinary phrases applied by ignorance to the process of the most rapid consumption of vital power), and, last not least, which saves the practitioner a world of trouble and intelligence which he would have to exert in the enlightenment of his patient, rather than in the yielding to his prejudice. But what shall be said of the dignity of a profession so exercised? *Du reste*, the baneful fashion will go out as it has repeatedly done before, and pass away after it has destroyed its thousands, like some plague sent by Providence to scourge mankind!"

Omnia Sanitas.—The future historian will probably attribute to Mr. Disraeli the greatest reform of the 19th century. London is to be rebuilt. Great masses of its now pestilent localities are marked for demolition. The fever dens of Baldwin's Gardens are doomed. The besom of destruction hovers over the Seven Dials. Light and air, cleanliness and comfort are to replace the dismal, crowded dens of filth and misery. Once begun, the good work will go on until the whole metropolis is made as salubrious as its best portions now are. But who is responsible for the murderous past of doubled and trebled death-rates? Whose are all the little graves filled from the swarming alleys of Drury Lane?

Dr. Hardwicke, in presiding at an inquest on the body of a child who had died from want of fresh air, took occasion to mention that London could be made a very healthy city if the drains and closets were kept in order, and the dust were properly removed. He advised the jury to stir up their local authorities to see that the dust contractors performed their contracts.—*Echo.* [We think we see coroners' juries stirring up local authorities to save the lives of thousands of smothered babies. Enough perish every year in London slums to form a large and prosperous colony.]

THE FIVE SENSES.

By DR. NICHOLS.

THE soul of man, in this bodily life, holds its ordinary communication with the external world through the medium of five senses—touch, taste, smell, hearing, and sight. These are the usual, but not the only modes of receiving sensations or impressions of the objects around us.

By the sense of touch we receive sensations of heat, cold, and an agreeable, exhilarating, or uncomfortable and depressing state of the atmosphere, perhaps its electrical condition; of the qualities of the bodies with which we come into contact, as being gaseous, liquid, solid, hard, soft, rough, smooth, sticky, slimy; of the forms of bodies, and the texture and qualities which we cannot so well judge by sight. People judge of silk, woollen, and cotton textures, the edges of cutting instruments, and many things by feeling better than by sight.

Nerves of touch are thickly distributed in the skin over the whole body—in the true skin under its protecting scarf, the horny cuticle. There are thousands of nervous extremities in every square inch of skin over the entire surface, for the smallest prick causes pain; but the nerves are more numerous, and the touch more exquisite in some parts that in others—notably on the end of the tongue, the lips, and the ends of the fingers. Take a pair of fine-pointed dividers, and you can distinguish the two points nearer together in such sensitive regions than on less sensitive portions of the body, as the arms or thighs.

The ends of the fingers are most commonly used for touch. Here, to give a greater surface, or a better chance for objects to affect the nerves, the skin is thrown into minute ridges. Under these ridges of the cuticle the *cutis vera*, or true skin, rises in little cones or teats, *papillæ*, which are alive with blood-vessels and nerves (Fig. 32). The nerves end in loops, as we have seen in the muscles, and they are so minute that the finest needle, or even the finest bee-sting, must pierce great numbers of them (Fig. 33). And every distinct fibre is capable of conveying an impression, or rather many kinds of impressions, to the brain, which has the power of forming, of these reports, a sensation and thence an idea of the qualities of the body examined. How delicate this sense may be, how many things can be done and enjoyed by the sense of feeling, they only can know who have been deprived of other modes of sensation. The blind acquire a wonderful power of tact, and carry on trades, and accomplish processes which seem impossible. But bees build their cells and perform all the wonders of the interior of their hives in darkness—that is, they prefer darkness, and carefully wax over a window to the hive if it is left for any time uncovered.



Fig. 32.—Pores and Papillæ of the Skin.

On the left is a magnified view of the ridges of the cuticle, with the openings of the pores in their furrows. On the right, the cuticle has been removed, leaving corresponding rows of papillæ.



Fig 33.—Nerves of the Papillæ.

Highly magnified view of the terminal loops of the sensitive nerves as they rise in the rows of papillæ.

Through the touch also we receive pleasures that seem to go much deeper than the forms and surfaces of objects. Our graspings of hands, strokings, caresses, kisses, are all exercises of the sense of touch, or at least complicated with it. We show our affection, and we enjoy its manifestations, by contact with those who are pleasant to us; and the sense of touch rises to its highest power of sensation in the voluptuousness of amative embraces. But, in this case, there is something deeper than any ordinary exercise of the sense of touch. The entire nervous systems of animal and organic life participate when the lives of two individuals flow together in the most important function of *physical* life—the continuation of the species.

Touch is not only diffused over the whole surface of the body, but a sort of touch, or feeling of pleasure and pain, may be felt in the deep-seated regions of the viscera, for we feel not only in our mouths, but vaguely in our throats, stomachs, and intestines. And there seems to be no reason why we should not refer to this sense the comfortable and pleasant feeling we have in the use of our muscles when we exercise with vigour, and the languor of fatigue, or the pain of inward maladies. An inner ache of rheumatism, or gout, affects the nerves much like an external pinch or smart. If they do not belong to touch, we cannot exclude them from the sense of feeling.

Taste is a sense more special and circumscribed. It is confined to the mouth, throat, and nasal cavities, but centres specially on the tongue, and on the end and outer margin of that curious organ. A nauseous pill, placed on the centre of the tongue, and well back, may be washed down without being tasted. Still, I can often perceive a very distinct flavour in, and perhaps beyond the fauces, or

glandular bodies which help to form the hinder walls of the mouth.

The nose assists taste, or taste and smell are so blended that odours are perceived as flavours. If a man hold his nose tightly, and shut his eyes, he cannot, by tasting, distinguish brandy, gin, whiskey, and rum from each other. The moment the odour is permitted to enter the nose, the taste of each becomes perfectly distinct.

To enable the tongue to taste articles of food so quickly as to give pleasure in eating, or guard by disgust against swallowing acrid or impure substances, it is provided abundantly with nerves whose office it is to convey to the mind a sense of flavours. As a nerve of touch carries the sense of cold, heat, dryness, hardness, &c., a nerve of taste carries a sense of sweetness, sourness, bitterness,



Fig. 34.—Small Papillæ of the Tongue; Loops of Blood Vessels.

and all the thousand modifications of flavour to be found in the vegetable and animal kingdom. These nerves are developed in papillæ on the tongue, as on the fingers, and the looped nerves, and looped blood-vessels attending and nourishing the nerves, make up the substance of these papillæ. The blood-vessels are shown in Fig. 34, as the nerves were in the preceding figure.

The uses of taste in warning us from danger are evident. But every natural function is attended with pleasure. All food natural and proper for man gives him delight through the sense of taste. Fruit, the most natural food of man, is the most delicious to the unperverted taste. The taste, however, in men, and even in some animals, may be educated and perverted. We learn to love things which were at first nauseous and disgusting to us. Men smoke and even chew tobacco. The excessive use of spices and condiments blunts the sensibility of the nerves of taste, and the corrupted sentinel lets the enemy pass into the stomach, and worry it into dyspepsia, while the whole current of the blood becomes tainted with the morbid products of an unnatural nutrition. All animals, in a state of nature, seem able to choose their proper food, and to avoid poisons.

Smell resides wholly in some large nerves spread over the inner surface of the nasal cavities. We draw in with our breath floating atoms of various bodies, odours; and a sense of their qualities is conveyed by these nerves to the brain and the mind. It is true that we also taste some strong odours; the molecules entering with the breath are caught by the tongue, and make their impression as a savour on the nerves of taste. But taste, smell, and all the senses are only modifications of the sense of touch or feeling. The atmosphere is filled with odorous substances—the vapour of the essential oils of plants and flowers, the various emanations of insects and animals, gases that rise from decaying vegetable and animal substances, the smoke of coal, wood, and burning refuse, or from metal and chemical works, and worst of all, the stench of human filth and disease. Most great towns are full of stenches; the country, on the contrary, when not infected with nuisances of human production, is full of delightful odours. What more charming than a ride or drive among flowering bean fields, lime trees, apple blossoms, and meadows of new mown hay!

The sense of smell not only guards the mouth and forbids the introduction of unfit food, putrid, nauseous, or acrid matters, but it guards still more, perhaps, the lungs from inhaling foul or poisoned air. It warns us against entering crowded and ill-ventilated rooms, breathing noxious gases, inhaling the odours of putrifying substances, and from remaining in the vicinity of those who are neglectful of personal cleanliness. Strong perfumes, snuff, and tobacco smoke, injure this sense and its protective powers. If our senses were in their natural condition, we should probably be able to avoid nearly all the causes of disease in malarias and contagions.

Many animals have the sense of smell in great perfection. Many also—perhaps most—secrete odorous substances which attract to them animals of the same species. The strong scent of many insects must be for them a sort of language, and probably a means of defence. The skunk drives off his enemy with a discharge of a dreadful effluvia, which he has the power to secrete from blood as sweet and pure as a lamb's. This odour fills the atmosphere over a large area, and lasts for weeks. Clothing, sprinkled with the secretion, can be freed from it only by burying it in the ground.

Every animal gives off its own peculiar odour. Dogs know the scent of the birds and beasts they hunt, and seldom mistake one for another. But every person, also, has his own peculiar and characteristic smell. Those who are blind and deaf can tell all their friends by their smell; and some who are not blind are endowed with an extraordinary sensitiveness in this particular. I know a lady who, lying in her bedroom with the window open, can smell the plants trodden on by a horse in a neighbouring pasture, the various breakfasts of the villagers, the drinks at the public-house, the medicines people are taking, the qualities of smoking tobacco over a large area, and so on. She has a perception of the condition of persons she passes in the street, can tell whether they have taken baths, and the state of their clothing and often their diseases. Even moral character and conduct seem to come out at times, to persons so sensitive, as peculiar odours, as we read of the "odour of sanctity," and of the delightful odours that cling around the bodies of departed saints.

The natural smell of the perfectly healthy human body is often as delightful as the perfume of a rose or violet. We notice this oftenest, perhaps, in the fresh health of a vigorous childhood. A sweet breath also indicates a satis-

factory sanitary condition. On the other hand, every disease has its distinct, and generally disagreeable odour. Many even pleasant odours act as poisons on the nervous system, and delicate persons should avoid strong and heavy perfumes. The rose cold and the hay fever are violent inflammations of the mucous membrane of the nose, caused by odours in some sensitive constitutions.

Smell gives us proof of the wonderful tenuity and diffusion of matter in the atmosphere; and we can see from the dispersion of matter as odours how the germs of such diseases as small-pox, yellow fever, intermittent fever, typhus, &c., may fill the atmosphere without always producing a conscious impression on our senses.

Hearing differs from touch, taste, and smell, in that the sensation is produced by the vibrations of the atmosphere. A bell rung in a vacuum produces no sound. There is nothing to carry on its vibrations. Sound waves spread every way in the atmosphere, but are stronger, and move more rapidly with the wind than against it. In a rapid train on the railway the engine is nearly noiseless, while the last carriages are in the roar of the noise and echoes of all that have gone before. Sound also rises well, and is clearer in moderately high altitudes. When sound vibrations are confined in tubes, they go to great distances with little loss in intensity. Sound pipes might supply a whole village with music, turned on like gas in every dwelling. Sound is conveyed very rapidly and with great force in water, and by means of cords or woody fibre. A slight scratch on one end of the longest piece of timber can be distinctly heard by placing the ear at the other end. A poker, suspended by a double string with its two ends put in the ears, and then struck, sounds like a church bell.

Sound is reflected in echoes and can be concentrated by concave reflectors, as it is accidentally in whispering galleries. In the focus of the bellying sails of large ships at sea sounds are sometimes heard from the shore at great distances. Architects have yet to discover the mode of constructing the best shaped halls for public speaking and music.

As the sound waves move with a velocity of about a mile in four seconds we see the flash of a gun before we hear the report, and can judge of the distance of lightning by noting the time it takes for the thunder to reach us. A long column of soldiers cannot all keep step at once to the music; and singers or players of instruments, far apart, cannot keep together.

The waves of sound, larger or smaller as the sounds are grave or acute, enter the opening of the ear. The long ears of the ass, horse, rabbit, &c., seem to be useful in gathering and concentrating these vibrations, but the external ear of man is probably more ornamental than useful; and birds and many animals have very acute hearing without any external ear whatever. About an inch within the human ear is placed a membrane, like the head of a drum, which receives the vibrations of sound. Within this tympanum is an air chamber connected by a tube, the eustachian, with the mouth, and three small bones, joined to each other, aid in carrying the atmospheric impulses to the labyrinth or internal ear, which is the real organ of hearing, where the auditory nerve fills three simicircular canals and a very curiously formed cochlea, or shell-like spiral chamber (**Fig. 35**), where its fibres may be



Fig. 35.—Labyrinth of the Ear, laid Open, Magnified.

seen spread out and gradually shortening like the strings of a harp or pianoforte, as if each sound from lowest pitch to highest had a separate nerve fibre to convey it to the sensorium; where atmospheric vibrations are finally converted into all the wondrous modulations of music and speech. This true ear, the organ of hearing, is embedded in the bones of the skull, and receives vibrations through the air in the inner chamber, through the small bones, and through the bone of the skull. The semicircular canals, placed in three directions, are supposed to show us the direction of sounds, and the nerves of the spiral cochlea the pitch, of which we can distinguish, from the lowest note of the organ to the sharpest insect tone, nine octaves; but there must be sounds on either side beyond the reach of our sense of hearing.

And what a vast variety of sounds the ear transmits to the mind; for the quality of tones is as various as the pitch. No two voices, no two instruments are alike. Violins so vary in quality, roundness, sweetness, loudness, or softness of tone that one may be worth a thousand pounds and another a few shillings. There are voices which bring large fortunes to their possessors; but all depends upon the power of the human ear to convey, and the human mind to feel, these differences. We cannot conceive of the nature of the differences in the vibrations which can make these varying qualities of sound. The waves or impulses may vary in size, or nearness, or intensity; but what can give all the varieties we hear in the notes of birds, the cries of animals, the instruments of an orchestra, or the modulations of the most perfect, wonderful, and delightful of all instruments, the human voice?

By our sense of hearing we have warning of danger, we are apprised of the action of the forces of nature, winds, waters, &c., and we know much of what is going on in darkness. We hear in our sleep, for a sudden sound, or the cessation of an accustom, one wakes us· we are guided in

darkness, and we hold intercourse with our fellows in language. The blind acquire such use of the sense of hearing that they can tell the distance of a wall, the approach of any one, the nearness of a lamp-post or other obstacle, and a hundred things for which others depend upon vision. Hearing, in conveying to the mind a sense of the quality. tones, and modulations of the voice, gives us a better idea of character than vision. Hearing goes more to the heart. We are far more impressed with what we hear than with what we read. The living voice has more power than all books or writings. We form an idea of persons from sight, but we never feel that we know them until we add the finer and deeper test of the sense of hearing.

While the structure of the ear is a mystery, that of the eye is a beautiful and wonderfully perfect piece of mechanism, of which we have some comprehension, and which we can never sufficiently admire. First of all, it is the most beautiful of our organs, in form, colour, position, movements, and power of expression. It has been called the window of the soul, and it expresses, by wondrously slight changes, all our emotions—love, scorn, hate, pity, pleasure, pain, joy, misery.

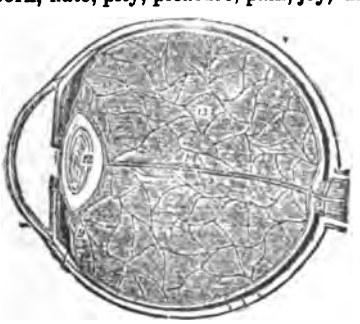


Fig. 36.—Section of the Eye.

The eye is a perfect camera obscura—a dark chamber like the box used by the photographers. The pupil is the round tube pointed toward the sitter, but in the eye it grows larger or smaller with every change of light. The lens of the photographer is shaped like that of the eye, and moved backward and forward with a screw to secure a focus, but the soul within adjusts the lens of the eye from instant to instant to every object of vision. The rays of light from the sitter form a picture on a plate of ground glass, and then on the sensitive surface of the negative. In the eye pictures are continually formed upon the retina, upside down as in the camera, and of microscopic minuteness, but the nerve spread out to form the retina carries the impression erect and perfect to the mind. It has been imagined that the sense of touch was needed to correct the defects of vision, but there are no such defects. Chickens just out of the egg judge of distances perfectly. Ducklings hurry off to the nearest water. The butterfly sees as well the first hour of his life as the last. The whole mechanism is simply perfect, and of itself enough to convince any reasonable being that it must be the work of an Infinite Artist, a Mechanician all-wise and almighty.

I have spoken of the muscles that move the eye in a former chapter, one of which passes through a cartilaginous pulley to change the direction of the moving force; but the lovely curtain that forms the pupil of the eye, the iris, is drawn back and forward by a most complicate apparatus. The eye is washed every moment and kept clean and bright by a gland above it secreting a salt liquid and the involuntary opening and shutting of the lids, while the superfluous liquid passes off by a tube into the nose. Beautiful lashes shade the eye from glare and protect it from dust, and comely eyebrows guard it against the sweat of the brow. How beautiful as well as useful are brow and lashes any one may see who chooses to cut them off and do without them.

How wonderful is vision, and how wonderfully adapted is nature to satisfy the sense of sight! Before it is spread out all the beauty of the earth and all the glory of the firmament. Nature and art exist for the eye, and the eye makes nature visible to us and art possible. Through this sense we feel what is distant, we reach to the stars, and, assisted by the telescope, which is only an enlargement or extension of the eye itself, we see myriads of worlds which had else remained invisible. In a similar way, improving the scope of our eyes in another direction, we are able to scan new worlds of the infinitely little, and examine myriads of creatures of which but for the microscope we should never have known the existence.

Sight, in civilised man, though improved by his inventions, has lost much of the power it has in many animals and the more simple races of men. Birds of prey, and those that feed on carrion from great heights in the air are able to see small objects over a vast extent of territory. Let an animal fall dead on a tropic plain, and in a few moments vultures are seen flying from different directions, which were previously quite out of the range of human vision. Think of all the objects of such a vast area being painted upon the retina of a bird, so as to convey to his mind the distinct idea of a living or dead animal on any part of it! A sailor sees a ship at sea when a landsman sees nothing but the waste of waters. The Arab espies a camel when it is but a dot on the edge of the horizon, and on his retina must be of minuteness inconceivable.

Sight is the highest, the finest, the most perfect of the senses. We hear by atmospheric vibrations, but we see by infinitely finer vibrations of the luminiferous ether which pervades all space. We can hear only sounds coming from a moderate distance, a few miles; we see, or receive the impressions of light vibrations which come thousands of millions of miles. These vibrations, excited by the action of some force in sun and stars, reflected by all the objects around us, break in waves of light upon the spread out nerves of vision, as the atmospheric sound waves break upon the nerves of hearing. And by means of wonderfully designed and constructed instru-

ments, and nerves, and brain, the sentinel soul within them all hears and sees. But who can doubt that there is a spiritual ear living in the material ear—a spiritual eye which has formed and makes use of the wonderful organ of vision? —*From "Human Physiology: the Basis of Sanitary and Social Science."*

LONDON, JANUARY, 1876.

1876.

THERE is a general feeling that the year on which we are entering will be one of extraordinary interest. Dr. Cumming assured us that 1875 would see the end of the Turkish Empire and of the Papacy; but the Reverend Doctor is possibly just a little in a hurry. America will celebrate the centenary anniversary of the Declaration of Independence. England fought against it eight years, but gave up with a good grace at last, and has no reason to regret the establishment of the Great Republic. 1876 finds the Prince of Wales in India, and Mr. Disraeli astride the Pyramids, whence, with Napoleon's forty centuries, he looks down upon his latest triumph, his purchase of the Suez Canal. Israel in Egypt. If the Great Powers decide to carve that Turkey for their Christmas dinner, England has chosen her part.

The past year has been one of heavy rains, disastrous floods, frightful tornadoes, and terrible calamities. This may be quite the reverse. We have seen England parched with droughts, and drowned with inundations. We have gathered great baskets of roses in open gardens on Christmas Eve, and shivered with cold at Midsummer. Weather is the despair of science. All the *savans* in Europe cannot tell whether it will be fair or foul a fortnight hence. The birds and beasts seem to know more about it than we do.

In one respect there seems to be hopeful progress. We have entered upon an era of sanitary reform. London is to be re-built; other towns will follow the example of our own and the world's metropolis. There may be war in Europe, but we shall make war on dirt and drunkenness.; we shall lower the bills of mortality; we shall give people purer air to breathe, purer food to eat, more of the conditions of health, more enjoyment of life. There will not be so many little graves in our cemeteries. More children will be at school; and more parents, let us hope, will keep their earnings out of the pockets of those who grow rich on destitution and crime, desolation and death.

Here is the work before us. We ask all who labour for the good of their fellow-men to co-operate in that work. We cannot settle the destinies of Europe; but we can make England more powerful, by making her people more healthful and intelligent, wiser and happier. While Americans celebrate their independence, let us secure our own.

UNQUALIFIED MEDICAL PRACTITIONERS.

OUR attention has been called to a brief notice in the *Times* of a meeting of Medical men in London, who propose to form a society to protect the profession, and the people also, we presume, from unqualified practitioners. It is essentially a trades union that is proposed. Gentlemen who have obtained certificates from one or other of twenty or thirty different colleges and hospitals, scattered over the three kingdoms, can register themselves as qualified practitioners. All others are liable to fine, and perhaps imprisonment, if they presume to practise. The society is to prosecute offenders.

It is the law, as decided on the appeal of the case of the "Peculiar People," that when any one is ill, his nearest friend must call in a physician; whoever neglects to do this may be convicted of manslaughter. So far so good. Now prosecute the unqualified, and the regular doctors and surgeons will have it all their own way. There is an Established Church to take care of people's souls; but the Government tolerates non-conformists, and dissenters, and even secularists. You need not send for a parson at the point of death; but if you have a cholic, you *must* send for the doctor, and no medical non-conformist will answer. The law does not tolerate medical dissent, much less medical infidelity.

Only, with curious inconsistency, the Government, which has established a religious faith by Act of Parliament, has made no such provision as to medicine. The Allopath believes that Homœopathy is useless; the Homœopath believes that Allopathy is murder; yet both may register, and both are held to be equally qualified. Call either and you will not be tried for manslaughter.

There is talk of dis-establishing the Church. We know that widely varying and even contradictory doctrines are taught from different

pulpits. The whole tendency of the age is to freedom in thought, and freedom in trade; yet here we have the members of a learned profession combining to enforce the most antiquated and absurd regulations, and compel people, at the peril of their liberty, to give up to one particular set of men the care of health and life. They propose to ask Parliament to pass more stringent laws for the protection of their monopoly, and it is difficult to say what Parliament may not do. Listening to its qualified medical advisers, Parliament has passed a law which compels every parent, under pain of fine or imprisonment, to have the blood of his child poisoned with virus from a diseased cow, mixed, as it always may be, and often is, with the virus of other diseases. If medical legislation can do this, what is to hinder the passage of a law which will compel every free-born Englishman to be bled or blistered; to take emetic or cathartic, cod liver oil or chloral, whenever a qualified practitioner takes a fancy to prescribe them, or be hauled up before a magistrate, and fined or imprisoned.

Is it possible that the members of a "liberal" profession are so far behind the spirit of the age?

STARTLING DISCLOSURES IN THE BUTTER TRADE.

The *Glasgow News* has been investigating the manufacture of butter, as carried on in Scotland, with the following results:—

"There is in Glasgow a manufactory where butter which, through age, bad manufacture, careless storing, or any other cause, has become decomposed and unfit for human food, is again made marketable. The first clue which we obtained of this business was a copy of a trade circular. In this circular a firm professed to be able to take out tallowy and greasy tastes, and also all smells except those of a very bad character. When butter has been kept too long it turns rancid through the course of natural decomposition, which takes away its proper colour, generates 'blue mould,' turns the butter into grease, and leaves it with a most nauseous smell, fit for nothing but to be used for lubricating purposes. This is technically called grease-butter. Such butter can be rewashed, resalted, and recoloured; and though originally made into tub butter, may be reconverted into 'lumps,' properly coloured and wrapped in muslin for the market."

The *News* men sent a sample to the factory for treatment, consisting of grease-butter mixed with Russian tallow, and the black grease from their printing machines, and some candle-grease—about as nasty a mess as one could well imagine. It came back converted into lumps of bright yellow butter with a stubble grass smell. Analysis and microscopic examination showed that it was the identical nastiness sent, but so completely metamorphosed that no housekeeper would hesitate to buy it. And this business is now carried on on such a scale that one branch factory turns out 3920 lbs. a-day.

We have not organised the Co-operative Sanitary Company, Limited, one day too soon.

A SCOTCH M.P. ON THE ARTIZANS' DWELLINGS ACT.

THE other day, speaking at Rothesay Mr Dalrymple, M.P., made the following excellent remarks on the Artizans' Dwellings Act, passed last session of Parliament:—

The Act was limited to towns of 25,000 inhabitants. Many of us would have been glad if smaller towns could have been reached by the Act; but I cannot doubt that a wise discretion was exercised in limiting the operations of the Act. It is true that smaller towns contain (for their size) as sad and disgraceful instances of crowded and unhealthy dwellings as any larger towns can do; but the machinery for putting the Act in force would probably differ in smaller towns, and who knows but a door might have been opened for escape from the Act if it had been extended to meet very varied cases? Devise what plan you will for reaching the great evils of overcrowded, disease-stricken habitations and localities, unless public opinion is roused and interested in the subject, I fear that Acts of Parliament will prove at least to be slow in effecting a remedy. And yet it ought to be felt, as indeed it is, a deep disgrace to any town—I care not where it is—that there should be any plague spot in its midst, be the outside ever so bright and smiling; and I count it a crying scandal that there should be persons possessed of property in the shape of what are called rookeries—nests of disease and dirt and vice — for which I take it they never fail to lift the rents, who are able with impunity, for want of that public contempt and social ostracism which such conduct ought to entail, to retard the progress of public sanitary improvements, or stay the hand of private benevolence, which would buy out the mischief even at a large sacrifice. I trust if there are persons in any towns in Scotland who are at this moment standing out for a high price for property which is of a hurtful and deadly character to the health and morals of a community, that they may be ere long reached by an extension of the Artisans' Dwellings Act, or by whatever Act may meet the case, and may suffer in their pocket, if that be their tenderest part, the penalty which they deserve.

A CONVERTED HOUSEHOLD.

A WRITER in the *Manchester Examiner and Times* says that PROFESSOR NEWMAN'S article on "Vegetarianism" in *Frazer*, having been read in a certain household in Manchester:—

"It was resolved by two persons to make the experiment for one month of entire abstinence from the flesh of animals, the other members of the family regarding the project with much disfavour. Before half the month was over, however, the whole of the party, nine in number, had joined in the experiment. At the end of the specified month, a unanimous vote was passed in favour of the new system, and from that time to the present all flesh food has been excluded from the table. The whole household, including childhood, youth, and middle age, not only prefer the new dietary as a matter of taste, but has in greater or less degree benefited in health by its adoption. Now, these facts are interesting and important because the opinion is generally prevalent that in order to enjoy vigorous health—in order, in short, to be equal to the high pressure at which we all live in this fast age, it is indispensable for us to eat large quantities of animal food, and to drink wine, or beer, or spirituous liquors. Every day it becomes more and more difficult to secure the flesh-eating population of our prosperous towns a supply of animal food free from disease and in no way deteriorated by long travel or ill-usage. We know that tons of diseased meat are seized in London as unfit for food, but who will estimate the amount that escapes detection? Now, if it be really true that we can enjoy life more and work better upon a diet of fruits, vegetables, and farinacea than upon the costly and somewhat dubious produce of the butcher's shop, then, clearly, it is high time to investigate a subject on which most people are painfully ignorant. The subject of human food is one of immense social importance, for it lies at the basis of happiness, health, and morals. If it be true that nine-tenths of the disease, and therefore of the misery, of mankind are the result of errors or excess in diet, then here is a field for the exercise of woman's powers noble enough to satisfy the loftiest ambition, and indisputably within her sphere. In these days of high prices, when marriage and housekeeping have become costly luxuries, no one should turn hastily away from such a book as that by Dr. Nichols, 'How to Live on Sixpence a-Day.'"

HEALTH AND HAPPINESS.

HEALTH and happiness go together. There is no use of talking about it, for they do. Not all the medicines or creeds in the world can make a bilious, nervous, sick person happy. He must be well before he can say, "I am in good condition in mind and body." There are a great many wrong notions in the world, and everybody has imbibed some of them. All have prescriptions for whoever complains. Some take this or that nostrum; others lay all unhappiness to the heart or conscience, while the seat of trouble is the stomach or liver. And it will be so long as the world stands, unless a reform be made in our habits. In the first place, a man's house should be the most healthful, quiet, restful spot on earth to him. The religion of a man's life should begin here; find its spring and nurture here. All the churches and meetings under the sun cannot do or undo what his home does. When he enters there, and shuts the door behind him, he should feel that the cares, duties, business, noise, smells, and everything else of the outside world are shut out. Here are relaxation and rest. He throws off his former life as he throws off his coat. When he sleeps, he should do it as going into the land of forgetfulness to come back refreshed and new. When he eats, it is to be nourished, the old wastes made up by new supplies. When he reads or chats with his family, it should be as he would sit down in an orchard to enjoy its fruits, or in a flower garden to be delighted and soothed by its beauty and fragrance. Home should be the club, library, picture-gallery, and sanctuary. But there are material arrangements connected with our social life; and not least among them are cooking and breathing. Poor or partially cooked food will drive health out of the body, and happiness out of the heart; and bad or no ventilation will ruin the peace of any home. One of the best and greatest blessings in a house is an open fireplace. It is where the members of the family mostly congregate, and are in the best spirits. The hearth-stone has witnessed more cheerfulness, and listened to more pleasant words, and seen brighter, happier faces than any other place in the world. The only prescription we give is, go and make your home bright and healthful, and it will be happy.—*Providence Journal (American).*

MIND and body act reciprocally on each other. A pure, clean, unexhausted body is the tabernacle of a serene and cheerful spirit. A sound mind in a sound body is the condition of happiness. We can reduce disease to its minimum—whatever that may be—and I see no absolute obstacle to its being stamped out altogether. We can raise the condition of man to its maximum of health and enjoyment, and I do not see any limit to that maximum short of perfect health and a corresponding happiness. This can come now, as far as evil surroundings will permit—health, sanctity, peace. What comes to one may come to all. If one man can be redeemed, the whole human race can be redeemed. If one man can be perfectly, or in a high degree, healthy and happy, all may be. Like causes produce like effects. I do not believe it impossible that the will of God should be "done on earth as it is in heaven."—*Dr. Nichols' "Human Physiology."*

BEASTS AND MEN. — When a plague falls upon the cattle of a country there is alarm, inquiry; it is the talk of every circle, written about in every journal; Royal Commissions are appointed, learned men are consulted, the experience of other countries cited; the Ministers bring forward measures in Parliament, bills are passed, supplies voted. But when half the people of a nation fall into the depths of poverty; when half their children die in infancy; when great numbers are wilfully destroyed; when the bone and sinews of the nation (its working men and working women) are perishing of foul air, crowd-poison, and other bad conditions of life; when these conditions are driving vast numbers of them to drunkenness, and filling workhouses and prisons; when the most wronged, ill-treated, and enslaved women are driven into the most hideous of all evils and curses — into prostitution and its avenging plagues—how little is thought, or said, or done, to remedy these evils!—*Human Physiology.*

GOD requires no man to live on credit. He pays us what we earn—good or evil, heaven, hell, or purgatory—and each according to our choice.

CURATIVE AGENTS:

THEIR USES AND ABUSES

By MRS. NICHOLS.

ENTHUSIASM for certain modes of cure—hot air, cold bathing, douches, mustard applications, hunger cure, &c.—has done much good, and also, at times, great harm. It is a fact attested by the experience of generations, that some applications of heat weaken the human system. It renders us unable to bear cold, therefore cold has fallen into unmerited disgrace, and is scarcely reckoned a remedial agent; and yet the prudent use of cold weather and cold water is very invigorating.

Persons who take continued exercise, not too violent, can bear both heat and cold with advantage. The lumbermen, hunters and trappers in the forests of North America, are illustrative cases. The lumbermen work very hard, and are exposed to great variations of temperature day and night. They sleep in a wigwam, made as close as they can contrive to make it, in a circle, on a bed of pine, or hemlock, or cedar leaves, with their feet to a great fire in the centre. They make the place as hot as they can, and then pass from this great heat of the night to the cold of the day, which, in the winter months, is very severe. The constant exercise of the day, in a cold, pure air, enables them to keep their health with all these alternations of temperature. Similar alternations are sustained by persons who spend their days in the Turkish bath, as shampooers, with an amount of exercise that equals that of the lumbermen, and their nights in poor and cold homes.

Persons who live by mental labour, or who have great cerebral activity, cannot bear a high degree of artificial heat for a long time without disastrous results. In a long practice I have observed that Americans who have great mental activity and excitability do not bear well the Turkish bath or the vapour bath. Patients with these characteristics suffer severely, and sometimes fatally, from the frequent use of these baths.

These baths, and especially the true Turkish bath, are much more useful to those who work with their muscles than to those who work with the brain.

Now, I do not wish any one to jump to the conclusion that I disapprove of the hot air bath. I use it for myself and others constantly. In cases of long-continued constipation, where a typhoid condition is established, hot air is the best possible scavenger for the system. In cases of high febrile action—as in scarlatina, measles (suppressed or efflorescent), small-pox, croup, gout, and inflammatory rheumatism, burns and scalds—I have usually given the preference to the wet-sheet pack; but the hot air, or vapour bath, may be used in many such cases.

There are cases in which people fear cold applications even when they are best, and in these we can sometimes get permission to use hot air, and the cold bath after, when we should not be allowed to apply the wet-sheet pack.

Where the hot air bath does not prove beneficial, the enthusiast decides at once that the patient has not had enough of it. Sometimes this is true. A resolute shampooer produces great results by continuing the bath and the personal magnetising. The last would very likely go far toward producing the cure even without the bath. What I wish is to guard patients against excess in any kind of treatment.

Heat weakens: cold produces congestion. Tremulous nervousness, sub-acute inflammation, and apoplectic symptoms are induced by excessive use of hot air. Congestion of the brain and hæmorrhage of the lungs, also uterine congestion and hæmorrhage, result from the excessive use of cold baths. Patients may suffer as much from excess in cold as from excess in hot treatment, but differently. I have seen frightful, and almost fatal hæmorrhage, both pulmonary and uterine, brought on by the excessive use of the cold sitz bath; but neither the abuses of cold water, nor of hot air, are arguments against their usefulness when properly applied.

The douche is one of the most useful means of cure within the compass of hydropathy, but distressingly fatal results may follow its unskilful use. There must be quick and continued reaction and warmth after the douche, or it will be hurtful.

If the patient reacts well against any cold bath, and then, in two or three hours, becomes chilly, we may be assured either that the bath has not been properly given, or that it is not suited to the case. If there is increased cerebral action, inability to sleep, and restlessness after the douche, it is inadmissible.

The wet-sheet pack is most useful in fevers, but if continued after the fever is subdued, and when there is not reactive power, congestion and death may result. Injudicious treatment by hot air, or cold water, brings disgrace and distrust upon the best curative means.

The blanket-sweating pack ranks next to hot air in its beneficial action. I discovered the benefit of this pack for myself, and do not know that it has been much used, except by our students. There are cases in which this sweating pack can be used with great advantage, where the wet-sheet pack is inadmissible. Generally I prefer hot air to the blanket pack, if it can be

obtained. But often a patient can be wrapped in blankets, with a hot water bottle, or a hot board or brick, put in his bed, when you cannot command hot air. Perspiration, induced by this means, is a curative often quite as efficacious as that induced by hot air. The process may be slow and tedious, compared with the well appointed Turkish bath, as the stage coach is to the rail, but the result is what we wish, however attained.

What is very serious in what is called the art of healing, is that it is an art and not a science and we have too few artists, and too many empirics, engaged in trying to cure disease. A trade, or profession has to be chosen, whereby to get a living, and it is sometimes possible for dunces to get diplomas. "Science" and "scientific principles" are fine words that may "butter no parsnips." A man in some parts of the civilised world, who has no ability to cure disease, may buy a diploma from other men who know no more than he does. An Eclectic from the United States may put down a herbalist here, with the declaration that yarrow and rue are not found in the blood, and that iron and alkalies are, and that with mineral practice he is adding to the constituents of the blood; when all the while he does not know the normal elements of the blood, or whether the metal, or mineral he gives will be in the smallest degree added to the blood. Every one knows that pure air and pure water are vital elements sustaining life.

The dynamic effects of remedies are strongly insisted upon by Homœopathists. For many years I have used Homœopathic remedies, believing that if they do no good they will do no harm, and also admitting the reasonableness of the dynamic theory. But if persons trust to any so-called remedy, and relax in self-restraint, and live to please morbid appetites, instead of living simply and healthily, then their trust becomes an evil. They defraud themselves of the best good. The actions of the skin and the lungs are equally important in keeping us alive and in health. The vicarious action of the skin for the lungs is often life-saving. In cases of pulmonary consumption, either by bronchorea, or ulceration, or the formation of abcesses, the skin may be excited to throw off the morbid matter either by judicious packing in partial, or whole wet sheet, or by the hot-air bath, or by mustard plasters. The last is the most doubtful mode of relief, though for a cold, or influenza, it is sometimes very useful.

The skin is naturally a great deterging organ, whose business it is to cast effete, poisonous, and hurtful matter out of the system. The skin and lungs labour to relieve the organism when there is constipation, or when poisonous substances, such as alcohol, or other diffusable stimulants, have been taken.

Love is a sustaining principle and curative agent. The mother lives for her babe, through labour, and trial, and suffering, that would surely kill her but for her love. Under hateful and hated conditions there is a depression of all vital power. Every function is partially suspended. We cease even to breathe in a measure, and heavy sighs make up for the deficiency of air in the lungs, and the consequent want of vitalisation of the blood.

Certain drugs, notably small doses of tartar emetic and what are termed sudorifics, are eliminated through the skin. Indeed, the skin throws off much of our superfluous food. Persons who have an acute sense of smell are very well aware of this. The odours of strawberries, raspberries, and many forms of food, not so agreeable (notably herrings and onions), are very sensible to the smell. Many hurtful substances are thrown off by the action of the lungs and skin, but we only take notice of those that we smell. Each disease has its peculiar odour. When I had become acquainted with disease in its many forms my principal means of diagnosis was by the sense of smell. Many would think my acute sense of smell a morbid state. I have been able to distinguish disease in what is termed its incubation, before even the patient knew that he was ill. A room would be filled with diseased emanations, and I have distinguished them in the third or fourth storey of a house, to which they had risen from the lower storey, or even from the street. To me these emanations were like a thick fog, when others could perceive no odour whatever. Some odours have made a distinct impression upon my sense of smell at a very remarkable distance from the substances that exhaled them. No doubt, the sense has been cultivated and rendered more acute by my mode of living. At times it has given me great delight, but more often I have been distressed by a consciousness of disease, filth, and unhealthy conditions. If the world were a fruit and flower garden, then a natural sense of smell would be very delightful. But styes and shambles blunt our olfactories, and minister to our comfort by demoralising an important portion of our organism. If I lived in a hospital, I might perhaps lose the power to distinguish diseases by their odours; but ordinary practice has never had this effect.

Much stress is laid by many on diagnosis; but to me it matters little that a physician knows symptoms, and can name a disease, if he does *not* know the best method of cure. There must be a best way to do everything in this world. An attack of pneumonia or bronchitis may be cured by what is called counter-irritation—that is, a patient may have a blister from cantharides, or the skin may be excoriated with mustard plasters, and the lungs may be relieved by either process. But this is not the best or most comfortable way of cure. The wet pack—that is, as much wet linen on the chest and body as the patient can readily get warm under when well and warmly packed in blankets, &c.—is a much more excellent way. Full perspiration in the hot air bath is another excellent way. The whole skin is made to act in both these modes of cure, whilst in the blistering mode there is induced a diseased and distressing condition of a small portion of the skin, through which morbid matter is poured out from the system. When mustard plasters are put on a considerable extent of skin, it becomes a miserable means to a doubtful issue. In burns and scalds, if the action of a large part of the skin

is destroyed, death ensues. In steamboat explosions, the number of square inches of skin rendered useless determines whether the patient will live or die; but cases entirely hopeless under ordinary treatment are restored by the judicious application of water cure. The skin that is in a healthy state is made to do double duty, acting for itself and the disabled portion. Wet-sheet packing is found to be of the greatest use in such cases. The mustard baths and packs now in vogue are, no doubt, liable to grave abuses.

There is a beneficial effect produced by the application of wet cloths to the skin that I have never seen explained, and that I have never been able to understand. I know the facts. A patient may have a cold or a cough, and may be unable to sleep from a constant hacking, which may not be productive of expectoration. A towel wrung out of cold or hot water, and put on the chest, will generally relieve in from five to ten minutes. The patient will become quiet, perhaps expectorate, and go to sleep. On waking, the wet cloth should be renewed; and if there is much congestion or tightness, two or three folds of wet linen may be put on and well covered. Of course, the sufferer must not be allowed to get chilly.

A baby who has what is called "snuffles" may be relieved by the same means, or even by putting a bit of wet rag across the nose.

The wet packs are often thought too formidable or too tedious a mode of treatment. Hot air meets with more favour.

For gout I have found the wet pack the best mode of cure, having relieved severe paroxysms by the use of the wet-sheet pack in 36 hours. I have not found the hot air bath as successful; and when a patient has abandoned the wet sheets and temperance for hot air and high living, he has died in a reasonably short time. The dependence of patients on the Turkish bath to cure them in spite of intemperance in food and drink, causes much undeserved disgrace to fall on their favourite mode of cure. It is no argument against the judicious use of the Turkish bath that weakness, excessive nervous disease, and inflammation of vital centres, are caused by its abuse. Strictly speaking, there is but one curative agent—the *vis medicatrix naturæ;* but air, water, and food, are means of life, and may be made means of cure. A water emetic may enable us to throw off from the stomach poison that would kill, or undigested food that would make us very ill, or even prove fatal by over-mastering the vital energy.

The Expectant System is not enough when the stomach contains poison, or bad food, or too much good food, or when the blood is burdened with dead corpuscles, when the nerves are oppressed with narcotic poison, when the liver and lungs are diseased and degenerated. To sit down by a patient in such condition and expect unassisted nature to cure, is like expecting a burning building to be saved when no means are used.

If the evil is not too great, the patient naturally gets better, but remedial treatment is indispensable to life in many cases. Opposite means of cure may be demanded by different cases. The starving patient must be fed; one full to repletion must be starved, and each means may be abused. The hunger cure is admirable for many, and a proper punishment for people who have taken too much food, when many of their fellow.creatures have too little. But the hunger cure may be carried too far. I may have some claim to be heard on this subject, as I once lived on one moderate meal a-day for seven months, in order to cure a tumour in my liver. It had become so heavy that I was obliged to support it by an elastic band in the day, and a hair pillow in the night. I could not assimilate food. The first process of digestion went on well, but the functions of the liver could not be performed except very imperfectly, and with great pain and restlessness, and almost entire sleeplessness. The seven months' fast was the main remedial process. I could not use water cure, except one full bath a-day, for I had not sufficient vitality to react against any more baths. I could not take much exercise for want of the strength derived from food. During the first portion of this fast I slept a great deal. The stomach and liver were left at rest, and therefore I could sleep. I was warned against the abuse of fasting. Even Dr. Nichols, who is a great advocate of the hunger cure, feared at first that I would not be able to sustain myself under the fast. I knew that if I could not I must die. I looked for the absorption of the tumour by the need the system would have of nourishment. In cases of starvation the fat is consumed first; what is not needed is used. A stricture may be cured by fasting, and has been. Extravasated blood is taken up and absorbed. A callous on a bone I have also seen disappear. The strength may be very little, especially for locomotion, but curative processes go on in a very remarkable manner. In my case the tumour became smaller, and after three months needed no support in the day. At the end of seven months it was no longer an inconvenience, and for three years I have had no recurrence of the symptoms which disappeared during my fast. I had reason to believe that this tumour was congenital, as I had suffered more or less from it since my earliest remembrance.

As fasting is a means of relieving the system of diseased and diseasing matter, whether gathered in one locality or dispersed throughout the organism, so sweating in the blanket pack, hot air, or wet sheet, are means to the same end. All these means may be abused, over used, and result hurtfully. The over action of the nervous system induced by packing and perspiration, or by hot air sweating, may lead to disastrous results. The great arteries in the neck become weakened and relaxed, and so impinge upon the auditory nerves, and the noise made by the circulation of the blood is what is called, "roaring in the ears." This is an effect of weakness; the tone of the nerves being reduced, the contractile power in the blood-vessels is lessened and the walls become enlarged; hence the impinging upon the auditory nerves. This is a symptom that should never be disregarded, as it is always a sign of nervous weakness. It may be produced in various ways. Too much mental labour, too great anxiety, excess in food or drink, or any dissipa-

tion, may cause this affection. I mention it as a consequence of the abuse of curative agents that patients may be careful. I regret to say that those who prescribe hot air baths, or other processes of water cure, are not careful if they are informed, and I have reason to believe that some do not know what they do. The hygienic education of physicians is of the first importance at the present time. Nothing is more needed than the true education of men and women for the healing art. The civilised world, with all its institutions for education, is perishing for lack of knowledge. Physicians are not agreed, and the best educated out of the profession know very little of themselves, anatomically, physiologically, or pathologically. I am only at the threshold of my subject, but I must postpone farther remarks till a future time.

DIETETIC EXPERIENCES.

To the Editor of the Herald of Health.

SIR,—Mrs. Nichols' article on Diet (in the December number of the HERALD), her answers to medical inquirers, and the distressing description of dyspepsia from one of her patients, have vividly recalled my own past experiences—my present shortcomings. I cannot get rid of the thought that a brief record of them may now prove helpful to others—perhaps to her whose sufferings are so well known to me. She will forgive me, then, for using plain words. When she speaks of not eating "more than six times" a day, and of coffee and bacon for breakfast, I do not wonder at her ill-health. If I lived as she does for only one day, I should be pretty sure of a week's, if not a month's, illness. Our esteemed physician gives us the best of medical advice and treatment. Perhaps she cannot speak so fully of dyspepsia from *personal experience*; this is my apology for giving mine.

As a girl of seventeen, full of health and spirits, I could eat almost anything. But having become considerably weakened through the folly, and, as I should now think, the sin of grieving intensely and persistently over domestic trials, I lost the gift of health. Under "medical care" for years, plentifully supplied with pills and doses, and dieting myself often on little more than dry biscuits and toast, port wine and strong tea, I at length awoke to the knowledge that my digestive organs were scarcely stronger than an infant's. Of course, I was ordered to take as much animal food as possible—to eat little and often; was never bade eschew pork and bacon, which I sometimes tried. And oh! the horrors of this "strengthening" system! I need not describe them. Nor the bilious attacks from cod-liver oil and other "nourishments," the extreme constipation necessitating constant aperients—the depression of spirits verging on despair. By mere chance, or by what we *call* "chance," I was led to read Dr. Nichols' "Human Physiology," which thrilled me with new aspirations, but I fear they would have remained unrealised had not a stray paper mentioned Mrs. Nichols' willingness to give advice. On writing to her I was at once made to feel that another good mother remained to me on earth. To her constant sympathy and kindness I owe much of my restoration. Her directions were to eat wheat-meal mush for a fortnight—nothing else. After that, never to eat oftener than three times during the day, taking one meal of wheat-meal mush; to abstain from tea, coffee, and other stimulants; eat vegetables, fruit, and brown bread, with as much fresh air and bathing as possible. Abstinence from flesh meat was not self-denial; abstinence from tea was. But I persevered, and, to the surprise of all my friends, grew well and comparatively strong. Life was again a blessing. I continue to enjoy the above diet, although I must confess to a return to *weak* tea, and also to a slight fourth meal this cold weather. But then I must explain that I am an early riser, dine early — never eat too much for "tea," and my "supper" is never more than a breakfast cup of thin gruel and a couple of dry biscuits. Yet I am ashamed of this. Mrs. Nichols' regimen may well put us to shame. If she, who has seen three-score years, can continue without tea or other stimulants, drink nothing but water, eat fresh fruits, what milksops and old women are we! I am making a resolution to have done with tea—weak or strong. Will the lady above alluded to join me in abstaining? Let us try for six months.

I may be further useful by naming the foods I find least easy of digestion. First and foremost, all kinds of flesh meat, excepting very tender lamb and fowl,—but I am better without these; all fat or fried fish. Amongst vegetables: parsnips, onions, dried peas, potatoes, *not* mealy; all kinds of pastry or cakes containing fat or lard, however little; flour and milk puddings. But I have an abundance of nutritious and truly delicious food in the softer vegetables, and the above named made digestible by mashing or stewing with a little water, butter and seasoning. Fruits, which I usually stew and take for breakfast; brown bread, cakes made with wheat meal, *without fat*; wheat and oatmeal mush, blancmange, &c.; fresh fish, boiled; a moderate supply of fruit jams; fresh butter and cream. If our despairing dyspeptics will live on such diet for only six months they will be able to write a hopeful account of themselves. They will find, too, that they grow stouter, stronger, enjoy their food as never before. Their whole nature will be purified and brightened. Trials and crosses that once seemed heavy will be smiled at, or borne in that patience that hopeth all things, endureth all, as from the hands of an unerring, wise, and loving Parent. Speaking for myself, I sometimes fear that I have become hard-hearted, because I really cannot trouble very much about anything now, although I have certainly inherited a tendency to melancholy. A faith in immortality and in a good God may be the chief cause; but, then, I believe I should never have grasped this faith firmly had I remained under the medical care that consigned me to flesh meat and stimulants.

And now, Christmas is coming with its holy and glad associations, its happy re-unions, its cherished memories; and with its roast geese and turkeys, its plum-puddings and mince-pies! If we would enjoy in all their fulness its spiritual blessings, let us determine not to be seduced into partaking of its material blessings (so called). Let us go on feasting on our simple dainties, and then the "festive season" will not be wound up with bilious attacks and "the blues," doleful countenances and bitter potions; we shall have more money to spare in "goodwill to man," brighter thoughts, whose seeds shall bring "peace on earth," a warmer love for the Christ who gives us the "merry Christmas," a hundred-fold better chances of meeting the really "Happy New Year."

Dec. 4, 1875. ELLEN J. PEARCE.

THE best food for an infant is the milk of a healthy mother. The mother's love strengthens her babe, and their lives mingle in the act of nursing.

MAN'S HERITAGE.

A POLITICAL and social reformer of a very energetic type, who was in his younger days connected with the Chartist movement in England, writes to us, from New York, two pages of compliments, pleasant enough to us, once in a way, but of no particular use to our readers, and then says:—

"The conditions necessary to health, which you present so clearly, can only be had when we 'abolish poverty.' Never did man speak a more obvious truth.. Proper aliment—clean comfortable clothing—pure air—houses, instead of hovels—healthful exercise—absence of anxious thought—growth—development of all our faculties. Alas! alas! where are these to come from? 'Abolish poverty.' Yes, that is the great underlying condition. But how, but how?

"We are perishing for a sixpence, whilst a mine of gold lies under our feet. We do not know—we never dream—that it is there. We see only what is on the surface. All men see that; no man sees more.

"So it is with the grand and simple truth—that we are all equal children of the Creator, equal 'heirs-at-law' of our Father's estate. No man of the countless, toiling, tortured millions knows that he owns anything but his miserable body—has any stay but the unreliable work of his hands. How is that man to attain the conditions necessary to health? Underneath health reform lies another—*the* other great reform. Give man his inheritance—mental, as well as material. Not only the soil and the seasons, but all science and art, are emanations from the Great Source, and belong equally to the human brotherhood. The enforcement of this great right is a prerequisite to all comprehensive and enduring reform. Establish health to-morrow, and the undisputed land-thief could crush it down next day, by taking away its vital conditions. The truth of all this you recognise in the emphatic phrase, 'Abolish poverty.' Teach men how to abolish it. You know the lesson. Insist upon it. On this foundation, and on no other, can you build up your darling object—the temple of health. On this alone will your temple be enduring."

See how things run in circles. Before men can have their just rights, or take the first step to secure them, they must be worthy of them, and know how to use and enjoy, and not abuse and destroy them. See what abuse has been made of the lessening of the hours and increase of the wages of labour. Luxury, drunkenness, and crimes of violence. If the masses of the people of England were to suddenly come into what our friend calls their rightful heritage, what would they do with it? They would spend it like the Prodigal Son, in riotous living; they would rapidly enrich the distillers, brewers, and publicans; they would quickly fall into more fearful demoralation and misery. No; we must begin at the other end. If people will learn to be temperate, economical, healthful, they will soon attain to all the rest. With health, intelligence, and industry the world can be conquered. and all rights secured.

WE shudder at the slaughter of great battles, but the annual preventable mortality of our large towns is equal to that of most battle-fields. The yearly account of London is,—killed, 20,000; wounded, 200,000; while Liverpool, Manchester, Glasgow, &c., suffer in still larger proportions. Is it not time that the educated and influential members of society—the nobility and gentry, the clergy, the press, members of parliament and of municipal bodies—should take an account of their responsibilities, and be ready to answer the cry of God—"Where is thy brother Abel?" The men who govern England are responsible for England's condition, as the captain of a ship is responsible for the condition of ship, cargo, and crew. They have acknowledged their responsibility for the sustenance of every member of society by the Poor Law; and for the ignorance of vast populations by enacting a law for universal education. They are beginning to confess their responsibility for disease and premature mortality by various acts of sanitary legislation.—*Dr. Nichols' Human Physiology.*

MEN are at war with nature, with each other, and with themselves; and in this triple warfare they are destroyed with a great slaughter. They war with nature in poisoning the air they breathe, the water they drink, and the food with which they are nourished; by living in the indulgence of exhausting passions and vices, and engaging in unhealthy and destructive occupations. They war with each other by competition, lying, cheating, corruption, seduction, robbery, oppression, slavery. Men are robbed of the soil which is their common birthright; of the stored up treasures of coal, iron, tin, copper, silver, and gold, which are the property of all; and in all our towns are robbed of needful space, fresh air, and enlivening sunshine—robbed of life itself, in being robbed of its necessities and enjoyments. And man makes war upon himself by his vices. Contented with his ignorance he does not seek enlightenment; wallowing in his pestiferous filth, he will not even wash and be clean, or open his windows for pure air; and he stupefies and embrutes himself with stimulants and narcotics—beer, spirits, and tobacco—spending on them the money that would place himself and his family in comfortable and healthful conditions.—*Ibid.*

THE causes of disease are exhaustion, dirt, bad air, clogged skins, impure and constipating diet, causing clogged intestines, coarse, impure food, especially eating the bodies of diseased animals; in short, dirt in every form, dirt in the lungs, in the skin, in the stomach, in the blood. Add poisonous drug medicines, drugged beer, drugged spirits, and that most poisonous and filthy drug tobacco, and you are sure of disease in yourself and your offspring.—*How to live on Sixpence a-Day.*

Do not cheat yourself of the present by living in the future. "When we are rich we will give alms," is the saying of an unwise, if not an irreligious person.

To Cure a Taste for Ardent Spirits.—Eat an orange every morning before breakfast. Not a bad thing to do in any case.

A Distinguished Centenarian. — Lady Louisa Stuart, the last descendant of the royal family of Scotland, has just died at Traquair House, near Peebles, in her 100th year.

A Sensible Doctor is Edward Playter, M.D., of Toronto, Canada, editor of the *Sanitary Journal*. He says:—"Strictly speaking, there is but one disease which is not preventable, namely, old age."

Mr. Simon says the deaths in England are one-third more than they would be if doctors did their duty in teaching the people the laws of Health. He estimates that 120,000 preventable deaths occur every year in England and Wales. Preventable by whom? Clearly, by the medical and municipal authorities. "Dr. Benjamim Lee, of Philadelphia, in a report to the twenty-sixth annual meeting of the Medical Society of Pensylvania, in July last, declared the physician who simply devoted his energies to the treatment of a patient, with typhoid fever, for example, was morally guilty of manslaughter should the disease become fatally epidemic."

Diet.—Professor Newman, at 70, a convert to the theory and practice of vegetarianism, says:—"I content myself with saying, that the inhabitants of county Kerry and county Cork are by impartial testimony singularly beautiful and strong, though nourished on potatoes with, at most, buttermilk, that the Scotch, living on oatmeal, are on the whole stronger and healthier than the English; that the porters and boatmen of Turkey equal the strongest *navvies* of the English railways; and that I am persuaded, a general survey of the broad facts of the human race show it to be a delusion, that flesh meat ever gives to men who labour with body or mind any advantage whatever."

How the Herring Fishers Live.—During the herring fishing season people are allowed in most of the seaport towns and villages to exercise their own discretion with regard to sub-letting and overcrowding their houses, the reason being that some or other of those who constitute the local authority in these towns are more or less interested in the herring trade. The eyes, ears, and noses of these functionaries, therefore, require to be shut from June to October. In a fishing village, not a hundred miles from Fraserburgh, there is a house of four apartments occupied as follows:—9 men, 5 women, 19 children, 4 parrots, 13 canaries, a bitch, 4 pups, and 2 cats—making in all 56 occupants.

Growth of Nations.—America doubles her population every 25 years; Russia every 50 years; England every 54; Spain 78; Italy 99; France 198 years. At this rate of increase, when France has a population of 80,000,000, the United States will have one of 6,240,000,000, or about five times the present population of the earth. But it is evident from the above figures that as countries grow old the reproductive power diminishes. It is not a lack of food, for France is a food exporting country. Belgium, the most densely peopled country in Europe, sends large quantities of food to England. A dozen American States, which average less than a million population, could each easily feed fifty millions. In the older American States there is little or no increase of the native population, so that the children of Irish and German emigrants will soon be in a majority.

Liverpool Liquor Statistics. — 1,900 spirit vaults, cash takings each £10, and other sums up to £200, per week, average £35 per week, £66,500 380 beershops, average £7 ditto, £2,660; 177 pawn shops (usury caused by drinking), £20 ditto, £3,540. Total per week, £72,700. Being nearly four million pounds sterling per year; equal to about £8 for every inhabitant, and £20 for every adult. The brewers and big publicans are amazingly rich with such money—getting richer, every day; they buy up the best properties in town, and buy fine country mansions, with large landed estates, for their families, and have heaps of money in the banks. They filch their wealth from drunkards' families, who starve and die in the crowded lanes, alleys, and courts. The liquor shops run down trade and labour; they keep 100,000 inhabitants of our town (drunkards' families) always in rags and shoeless, living in empty hovels, and they keep twice as many more inhabitants poor, whereby the useful trades in the town lose about 200,000 customers every day; such loss makes tradespeople and sober working people unable to buy what their families need.—*Liverpool Placard*.

Life in the "Black Country."—The *Lancet*, a few years ago (we hope it better now), had some horrible notes on the sanitary state of the black country. In Wolverhampton and the neighbourhood, it said, constant instances occur of one open, doorless watercloset for a whole row of cottages: nay, very often a room, or even two, are built over the "ash-heap." This is common in the delightful locality called "Caribee Island." Yet there is no want of money nor anything like distress among the inhabitants. At Darleston, in a puddler's hut—a miserable place quite unprovided with any sanitary requisites—the family are found eating ducks at 6s. 6d. the couple, and green peas at half-a-crown the peck; "a lump of salt stuck on a filthy table serves them for condiment." They like it so. When a woman at Oldbury calls in the inspector of nuisances because the water is utterly undrinkable, she is forced to move off to another place. The Oldbury conservatives (of fever and such like) meet at the Talbot Inn, calling themselves "the Ratepayers' Protective Association," and vote all cleaning, draining, and improvements to be mere humbugging excuses for taking money out of their pockets and putting it into those of inspectors and surveyors.

The House-Fly and its Purposes.—As most housekeepers are apt to consider the familiar house fly an unmitigated pest, it is but right to call attention to some recent investigations of an English chemist, which go to bear out the pious axiom that everything has its use. This observer, noticing the movements of flies after alighting, rubbing their hind feet together, their hind feet and wings, and their fore feet, was led to explore into the cause, and he found that the fly's wings and legs during his gyrations in the air become coated with extremely minute animalculæ which he subsequently devours. These microscopic creatures are poisonous and abound in impure air, so that flies perform a useful work in removing the seeds of disease. Leanness in a fly is *prima facie* evidence of pure air in the house, while corpulency indicates foulness and bad ventilation. If these observations are well founded, the housekeeper, instead of killing off the flies with poisonous preparations, should make her premises as sweet and clean as possible, and then, having protected food with wire or other covers, leave the busy flies to act as airy scavengers.

ADVERTISING DOCTORS.

A doctor who tells people that he can cure their diseases, or that he will try to cure them, is denounced as a quack. It is contrary to the etiquette of the profession. He may put half the letters of the alphabet to his name, and get his name into the newspapers, if he can, say in connection with some hospital or other charity which may advertise. He may write a book, and puff himself and his practice all through it; but it must be published by a medical publisher, and advertised only in the medical papers—with one exception. It may be announced three times in the *Times*. More than that, the *Lancet* assures us, is quackery. He may get his book noticed as much as he can: alluded to in leading articles. Perhaps one of the neatest things he can do is to publish a popular pamphlet in which he denounces advertising doctors, advertise that in papers having the widest circulation, with his own books well advertised and puffed on its covers, and the whole affair crying as loud as ever it can—"Come and be cured! Don't go to those other fellows who advertise; they are quacks. Come to me!" Such a revelation of quacks and quackery reveals more than one might notice at the first glance.

No, a physician must not advertise; but he may take a house in a fashionable square, and get his name and titles into all the directories; he may set up a handsome brougham and neat liveries; he may get himself called out of church every Sunday; he may parade in every subscription list; write letters to the local newspapers; manage so as to catch the public eye in a thousand ways, but he must not send a straightforward, honest advertisement to a newspaper.

Why? We know of no reason, only that it is a professional rule—a part of its trades' unionism or freemasonry. A barrister cannot speak to his client, however useful or necessary it might be to do so. Everything must come through the solicitor. And barristers have their own fashions of advertising with special curls in their wonderful wigs, and silk or worsted gowns, Q.C.'s, and law reports in the newspapers.

The clergy advertise abundantly, in their pulpits and out of them. Their sermons are announced in handbills and the journals. Their portraits are printed in weekly papers, and their photographs displayed in shop-windows. Who so thoroughly well advertised as a popular preacher?

And authors? Well, one has but to look in the book advertisements, book notices, posters at railway stations,—everywhere, in short, to see how authors are advertised. Etiquette does not cut *their* corners.

Artists do not lack publicity, especially musical and theatrical artists. Read the advertising columns of the *Era* or the *Hornet* for example. How obstreperously they blow their trumpets on this wider stage, as they used to do at the fairs. There is no doubt that they pinch themselves often to pay for their tremendous puffs, and then read them every week with new delight.

And the great world—our magnates and aristocracy, and people of fashion, do they advertise? *Don't* they? Read the *Morning Post;* read the *Court Journal;* read the fashionable intelligence everywhere. They cannot go or come, be born, or get married, or die and be buried, without plenty of advertising. Everything is done with sounding trumpets, beating drums, and ringing bells. No fair so noisy as Vanity Fair. Sir Harcourt could not elope with Lady Gay without first sending an account of the affair to the fashionable newspapers.

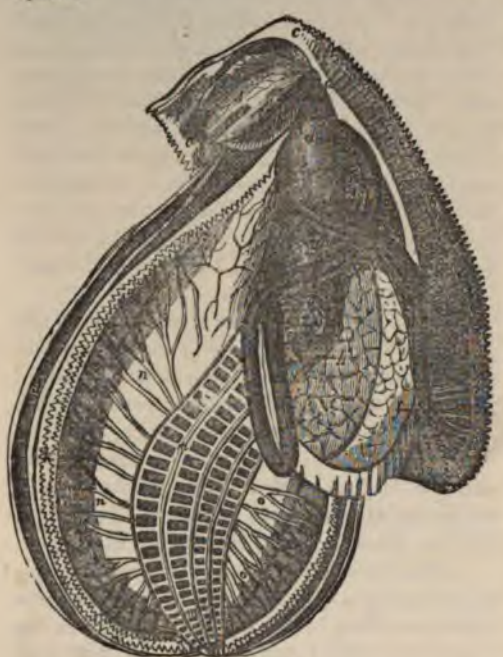
And the higher we go the more we get of this urgent publicity. Her Majesty cannot step out of her door, but the whole world must know of it next morning. Look at the newspaper columns which chronicle every movement of the Prince of Wales' visit to India. He cannot stick a pig, or shoot an elephant, but it is telegraphed round the world, and is known in London, New York, and San Francisco, as quickly as in Calcutta.

"Johnston's is the best." "Brown and Polson's is the only genuine." "Dr. Hassell's is the most nourishing." All cry like butchers in the New Cut—"Buy! buy! buy!" All puff their own wares, and, by implication at least, abuse those of their neighbours.

Forty Years of American Life.—Doctor Nichols has what is termed a ready pen, and describes what he sees in a lively and pleasant manner. Forty years' residence in America, and travelling over its surface from east to west, and from north to south, have given him the means of describing that country, and the peculiar phenomena with which it abounds, in a very agreeable and attractive manner. The book ought to be read by every thoughtful Englishman, for it furnishes a fund of instruction upon America, her institutions, her people, and their physical, social, and religious condition.—*Christian Globe.*

ORGANISATION OF THE OYSTER.

The oyster, prisoner in its shell, glued to a rock, with no sense, probably, but that of feeling, which is the basis of all sensation, seems pretty low down in the scale of life; yet this engraving shows a rather complex organisation. There is a mouth like a tulip, and a stomach and alimentary canal evident enough. The heart has the proper shape as we find it in a pack of cards; the nervous cells form a sort of spinal column: and there are abundant organs of circulation. According to the theory of natural selection, it must have required no inconsiderable period of time to perfect an oyster.



The Oyster

The Law of Exercise.—The condition of life is use. "Rust consumes faster than labour wears." This is said of metals; but it applies with tenfold force to the human organism. In idleness the body falls into languor, disease, decay, and the mind into imbecility. The musician out of practice cannot play; men forget languages and sciences. To be good we must do good. We need the daily exercise of the highest theological virtues. To keep us up to our best life we need every day to exercise a wide range of our moral, mental, and physical faculties. Every day we should try to learn and do something which will advance us to a higher level of life. In this requirement, and in this power of progress, we differ from the lower animals. Happily the natural tendencies of childhood are to an abundance of vigorous exercise. What a wonderful intellectual and muscular activity is displayed by children from a year old in play. The monotony of most kinds of labour may tire and disgust them, but they can play from morning till night, and might work as well, if work could be found that was varied and amusing. Therefore, a child brought up in the freedom of an out-door life, with genial playfellows, grows up strong and healthy. The curse of childhood is to be shut up six hours a-day in unventilated school-rooms, breathing bad air, and wearied with useless tasks, called education. Better a healthy brain, vigorous lungs, a pure blood and good circulation, and free action of the skin and all organs of purification, than ever so accurate a knowledge of the names, dates, and ages of the Kings of Israel and Judah, or even those of England, and all the other useless and quickly forgotten things which burden the mind of childhood. Girls fare far worse than boys, and we see the result in the ignorance, the helplessness, and the wretched ill-health of great numbers of women. From birth to seven or eight years of age, girls and boys live and play together, and are much alike; but when the little Miss of the upper and middle classes becomes a young lady, all is changed. While the boy is expanding his chest and hardening his muscles with football and cricket, and all the vigorous sports and pastimes of the English schoolboy, his sister is at her pianoforte, her needle-work, her drawing, or walking out in boarding-school processions. A young female costermonger is hardy and agile as a tigress; but a young lady is too often a bundle of nerves, and very unfit to become a wife and mother. The consequence is, that great numbers become a prey to consumption and nervous diseases.—*Human Physiology.*

Health Conditions for Children.—Next to being well born and well fed, the first condition of health to a child is pure air. Air is as necessary to life as food, and bad air and bad food are equally prejudicial. Not one child in ten gets air enough. The infant is kept under bed clothes, or covered up in a cradle to breathe its own breath over and over again, when it is growing more poisonous at each respiration. How often have I seen an infant's face covered over with a veil or handkerchief, even when carried out to "take the air." Precious little air it got. Children sleep in close rooms, three or four perhaps with their father and mother. Can we wonder that they are all cross and sick, and that the first attack of croup, or measles, or scarlet fever kills them? Then they are sent to school, and two or three hundred children, who ought to be breathing the pure breath of heaven every moment of their lives, are crowded together in some church basement impossible to ventilate, or some decent schoolroom, which the teachers are too great fools to ventilate. With compulsory education the first stage would be to give the teachers some lessons in physiology and the laws of health.

Curious Results of Ventilation.—In a weaving mill, near Manchester, where the ventilation was bad, the proprietor caused a fan to be mounted. The consequences soon became apparent in a curious manner. The operatives, little remarkable for olfactory refinement, instead of thanking their employer for his attention to their comfort and health, made a formal complaint to him that the ventilator had increased their appetites, and therefore entitled them to a corresponding increase of wages! By stopping the fan a part of the day the ventilation and voracity of the establishment were brought to a medium standard, and complaints ceased. The operatives' wages would but just support them, but any additional demands by their stomachs could only be answered by drafts upon their banks, which were by no means in a condition to answer them.

A BAD COLD:

HOW TO CATCH AND HOW TO CURE IT.

By Dr. NICHOLS, M.D.

We never hear of a good cold; and bad colds are not good things to have, nor safe to keep. The season has come when all should beware of them. A cold caught in the autumn may hang on all winter, and, where there is predisposition to consumptive disease, may be the immediate cause of its development.

We all know the symptoms of a cold—suffusion of the eyes, excitement of the mucous membrane of the nose, tingling sensations, sneezings; then soreness of the throat, irritation of the breathing tubes in the top of the lungs, cough, expectoration, tightness of the chest, hoarseness, &c.

Most people are liable to colds at times, from some imprudence, as a change of clothing, going from a heated room into a cold atmosphere without sufficient protection, sitting with wet feet or in damp garments, sitting when warm in a sudden draught; but colds—and very bad colds—prevail among the poor, who live in bad air, who have insufficient clothing, whose skins are never in a healthy condition, and whose bodies are consequently full of the matter of disease.

If you like to see how this works, go some Sunday after the first cold snap, or any time in winter, for that matter, to some crowded church or chapel in the poorest quarter of London or any large town—a Roman Catholic chapel in a densely-peopled Irish quarter, for example—and you will have enough of it. The portion of the house devoted to the poor is densely packed, as if they huddled together to keep warm. They are ragged, thinly clad, and not clean. And they are all coughing. They try to listen, they say their prayers, they finger their rosaries, they restrain themselves as much as possible to hear the notices read of the dying and the dead they are asked to pray for, and the epistle and gospel. They try hard to keep quiet in sermon-time, but break out into a chorus of coughing at every pause of the preacher. At the consecration they bow their heads, all devoutly kneeling, and are silent as death while the bell rings and the incense rises; but the moment they have ceased the roar of coughing begins, all the louder for the pious restraint.

And it all comes from the poor. The clean and comfortably-dressed people do not cough. In churches in nice districts, well-to-do and fashionable congregations do not interrupt the service. They are too well bred, and too well provided for. Then, if they happen rarely to have colds, they stay at home and nurse them. The poor would have to stay at home all winter; and their houses are too crowded and uncomfortable.

There are several good ways to catch a cold. Breathe bad air for two or three hours in a crowded, unventilated assemblage of any kind—school, church, theatre—and the mucous membrane of the air passages will be poisoned and weakened enough to readily take on inflammatory action at the slightest chill of the skin. The pores close, the interior sluices open to do their work. The morbid matter which should come out of the skin is carried inward to irritate the air tubes. Scientific ventilation of places where crowds of people are assembled is almost unknown. The courts of law in England are generally nuisances of so execrable a character that the wonder is how judges, jurors, and counsel can live in them. We are half stifled in railway carriages; children and teachers are poisoned in schools; churches, it may be feared, do more harm to the bodies of people than good to their souls; and the theatres are, perhaps, the worst of all. In the upper and most crowded portion of the Covent Garden Opera House the attendants resolutely keep the ventilators closed, apparently to keep the audience up to the point of consuming bottled ale, soda water, and ices, and in a proper condition to catch cold on going out, and make business for doctors, chemists, quacks, and undertakers. Well may the mortality of all towns rise at every fall of the thermometer.

The best place we know of at present to catch a bad cold is Drury-lane Theatre. Some portions of it are specially constructed for the purpose, as if the inventor of a cough nostrum had stood at the elbow of the architect. Mr. Boucicault and his wife are drawing full houses every night. In private boxes, central stalls, and pit, or front rows of boxes, you may do pretty well—but beware of the rest. During the long acts of "The Shaugraun" you will get very warm with crowd and gas and excitement. The moment the curtain falls people will rush out to get refreshments, and, of course, leave the doors wide open. A cold air comes in in a full current from the street, feeling as if it came across an iceberg. The back of the head and neck where men wear little hair to protect them, gets thoroughly chilled. This process is repeated three or four times, and the result is a cold that will probably last three weeks, and may last all winter. Ladies suffer less than gentlemen in these cases. They usually have extra wraps to protect them, and just now the fashion of hair saves them from draughts *a posteriori*.

Chill after warmth is the common cause of colds; but several things may favour this result. Whatever lowers the nervous power diminishes effectual resistance. When a man has eaten a full meal he is at a disadvantage, because the force which might protect the external nerves has gone to the stomach to take care of that, and dispose of the burden thrown upon it. Fatigue disposes to congestion. One may safely plunge into cold water when very warm and in full perspiration, though he should not stay in it long; but if much fatigued, he had better keep out of it. One may take a quick bath even of ice water after a pack, or hot air or vapour bath with advantage; but to

sit in damp clothes, or with wet feet, or in a draught, may be fatal. There is never harm in a quick chill, followed by a quick reaction. We never knew any one to take cold from taking a bath; and it is always safest to follow a hot bath with a dash, a final rinsing, of cold water to leave the skin in good condition. When people went to bed in damp sheets with insufficient covering after a hearty supper, and more toddy than was good for them, they might well catch their death of cold; but who ever caught cold in the wet sheet pack, with the whole body enveloped in a sheet wrung out of cold water, but wrapped up in plenty of blankets so as to be warm in ten minutes and perspiring in an hour? On the contrary, this is the best way to cure a cold in all its stages; because it restores the action of the skin, and thereby relieves internal congestions.

The way to avoid colds is to keep the skin in the most healthy and active state by the daily cold bath and plenty of friction, to breathe fresh air night and day, sleeping and waking. People who always sleep with open windows seldom or never take cold; people who live in tents or sleep in the open air, in climates that will admit of it, are not liable to colds.

Great temperance in diet, and the disuse of all stimulants are great protections against every kind of disease. Every stimulant lowers the habitual tone of the system. Hot drinks, even those that many consider most innocent, open the pores, and weaken the skin, making one more liable to cold on exposure. So of warm baths unless followed by a dash of cold water. One may go to bed after a warm bath with good covering, but it is not safe to go out unless taking brisk exercise, and well protected.

And in a climate so changeable as this, where the whole sky may cloud over and the thermometer fall ten degrees in as many minutes, everybody should be protected with good, thick, woollen clothing. One needs it near, if not next, the skin the year round. Sheep do not catch cold except after shearing. A great coat over the arm, and an umbrella in the hand are English necessaries of life. With the central health condition of a good stomach, with the external health condition of a clean and active skin, and ordinary prudence in avoiding heats followed by chills, one may live for years without ever taking a cold; and if one comes by misadventure it is quickly thrown off, and scarcely felt as an inconvenience.

Having a cold, how shall it be cured? First of all, give no credence to the proverb, "Stuff a cold and starve a fever." Stuff a cold and have a fever is a truer reading. It is much better to fast entirely, or take only toast-water, or the thinnest gruel. Drink, if thirsty, water, barley water, or weak lemonade.

At its very beginning, soon after the chill, a cold may be cut short at once, and all its bad consequences prevented by a hot water bath, a hot air bath, or vapour bath, or a wet sheet pack—by any method, in fact, of strongly exciting the action of the skin, bringing on a full perspiration and relieving the congestion of the mucous membrane. Even when the cold is well fastened upon the system there are rapid means of cure. Dr. Muzzy, our first professor of anatomy and surgery, used to cure his colds by keeping in a warm room and living on thin Indian meal water-gruel. A few baths, and plentiful rubbing of the skin with rough towels or flesh-brush, expedites the process.

With reasonably good conditions, a common cold runs its course in about three weeks. The mucous membrane of nose, larynx, and bronchia, if it extend so far, exudes matter plentifully that should have been cast out by the glands and pores of the skin; the equilibrium is re-established, and each organ does its own work. But suppose there are dormant tubercles in the lungs, the excitement may make them active. This is pulmonary consumption. Or there may be such a weakness —such a delicacy in the system, that the inflammation spreads along the passages, and the morbid action will not cease. There is not life enough to restore the action of the skin and relieve the oppressed lungs. This is bronchial consumption—fatal as any other.

In these cases, change to a pure, dry air, often seems the only hope. There are regions where such diseases are almost or quite unknown. There are others where they are sadly prevalent. A clay soil; a damp locality; a place where mists are seen morning and night; especially places at once damp and foul and chill, are the nurseries of lung diseases; while a porous soil, which dries quickly after rain, where cold mists never gather and the air is pure and invigorating, is the residence one would choose for all persons predisposed to consumptive diseases.

Colds should not be neglected. Hardy people with good lungs may let them take their course; but when there is any predisposition, any tendency, any special liability to lung disease, the sooner the internal congestion is relieved, the sooner the skin restored to its normal action, the better.

Colds fall on other parts, and may fall on any With tender, weakened, disordered nerves, a cold may cause earache, toothache, facial neuralgia, rheumatism. It may cause inflammation of the stomach, of the bowels, diarrhœa, dysentery, inflammation of kidneys or bladder, glandular diseases. This is a matter of predisposition or accidental direction of the chilling influence. We have known sitting on a cold stone after a perspiring walk, to bring on piles. Special exposures may cause local attacks of rheumatism. A suppressed perspiration often causes a sharp pleurisy. In short, the congestion and inflammation of internal organs, caused by a sudden chill of the external nerves, may fall on any organ or tissue of the body.

There is no such magical application to relieve a cough, as a towel wrung out of cold water and laid double or four fold over the chest. Cover with a dry towel or flannel, and wrap up warmly in bed. The relief is instantaneous. Renew as required.

The only safety is to keep the whole body always in its purest and best condition—to make good blood by eating good food at proper intervals and in proper quantities, to breathe plenty of good air and take sufficient exercise, without overwork or overworry, without stimulation or waste of life; to keep the skin hardy and active by perfect cleanliness. These are the conditions alike of health and cure.

PLAGUE SPOTS.

War has been declared on dirt, and dirt, Lord Palmerston told us, is matter in the wrong place. Nature turns filth into apples and roses. In some parts of America people bury their departed friends in Orchards—not minding consecration. The trees bear plenty of good fruit. Once, for some reason, it was desired to remove the remains of one so buried, and they found a very clean skeleton, with every bone tightly encased in small twining rootlets of the apple tree. It is a sort of canibalism, no doubt, but have not the English cornfields been manured with the crushed bones of her heroes, gathered on the field of Waterloo? Is not mummy dust imported from Egypt? It matters little. What does matter is that we shall not breathe, drink, and absorb what is still filth; that our rivers shall not be polluted, and the atmosphere made poison by such places as can be found in the heart of the metropolis, and even in some of its most aristocratic precincts. Here is a place by Regent's Park, described as "a sink of filth and iniquity":—

"Several members of the committee who visited it were so sick with the stench and filth that they were obliged to rush out of the place. In one house they found a corpse which had died of fever, and two people had since been removed suffering also from fever. The back rooms had no windows or any ventilation or light whatever, except what they received through the door leading from the front room. The window of the front room faced a common privy for the whole of the inhabitants, and even that was not a proper structure, and was partially supported by the water tank out of which the inhabitants received their supply."

Several members of the committee that lately inspected Baldwin's Gardens were made sick, and all wondered how human life could go on in such places. It don't very long. The mortality is dreadful. The streets swarm with children—but how few ever grow up to be men and women; and what sort of men and women some of them become any one may see who strolls through these districts.

The High Price of Meat.—The *Daily Telegraph* gives us now and then a good leading article on English cookery. In a recent number it tells us that it is only the rich and the poor who are healthily fed, and that:—

"In the ordinary middle-class household the consumption of butcher's meat is not only wasteful, but positively unwholesome. In hot summer weather such as the present, the big roast joint, flanked with steaming potatoes in one dish and a colossal cabbage in another, is simply nothing more nor less than an abomination, against which the medical man, equally with the economist, is bound to protest."

We are informed that:—

"The cookery of the average British household is miserably and shockingly bad. Boiled potatoes and roast meat, varied by boiled potatoes and boiled meat, and so again by baked potatoes and baked meat, drive a man in sheer despair, and out of mere disgust for the perpetual potato, to eat far more meat than he either likes or finds good for him. If only the secret were more generally known of dressing vegetables of different kinds—beans, above all; of preparing dainty stews *à la jardinière;* of stewing, not boiling, the more nutritious kinds of fish; and of preparing palatable soups and *purées*, the butchers bill of the small household, such as that to which we have been all along referring, would be diminished by one-half, while the day's dinner would be more toothsome, more wholesome, and little, if indeed at all, more troublesome in its preparation."

All this is very true, very deplorable, and quite unnecessary. To meet this very case, we have written and compiled a gastronomic treatise, entitled "How to Cook," which is better, in our opinion, than to write a thousand leading articles. This little book, which contains the principles as well as the practice of all the nicest cookery in the world, with hundreds of vegetable, fruit, and farinaceous dishes, a wonderful variety and at every price, any one can buy at any bookstall, or have sent by post, for sixpence. Studying it carefully, any person of common intelligence could in one month become an accomplished cook and able to turn out hundreds of dainty and, what is better, healthy dishes.

Temperance Men must not stop when they have induced a man to give up drink. That is the first step, but there are many more. We cannot be content until the whole people enjoy all the conditions of health and happiness.

The Butter Supply.—It is an actual fact the larger portion of the butter of commerce is not made from milk, but from pork and beef fat. Shiploads leave Ireland regularly for Ostend to be turned into "fresh Ostend butter;" and nearly all the best fat from the foreign cattle that are slaughtered at Deptford is also turned into "fine Dorset butter."—*Dietetic Reformer.*

CIRCULATION OF THE BLOOD.

No one can quite "realise" the composition of the blood and its circulation until he sees it living and moving, in the transparent arteries and veins of a frog's foot, for example, under a powerful microscope. Red and white globules are borne on in a transparent liquid which rushes like a torrent—for motion is magnified as well as size. This engraving gives a faint idea of the appearance, but the wondrous living movement must be seen.



Circulation in a Frog's Foot.

ANSWERS TO MEDICAL INQUIRIES.

By Mrs. Nichols.

The best way to treat an apoplectic attack—what the common people call a *stroke*—is to dash cold water on the head, spine, and umbilicus. Then rub the patient persistently: a half-hour's rubbing will work wonders. When all this is done, pack the patient in a wet-sheet pack, or put a wet bandage about the body, and cover with blankets and a down quilt, so as to induce perspiration. Hot air may be used, with cold applications to the head. If profuse perspiration can be induced, the patient can be saved. We have seen a case of hemiplegia substantially cured by thirty-six hours' continuous sweating, aided by occasional cold sponging. In cases of apoplexy followed by palsy, the writer has restored patients to health and facility of motion, and this when they were past sixty years of age, and had been some weeks under ordinary treatment, with little good effect. They were restored by the use of the daily pack and douche.

In cases of this kind the hot-air bath may be used with success if the physician is sufficiently careful. The wet-sheet pack is attended with less risk where the patient has reactive power, and can readily get warm in the pack. Let it always be remembered that a permanent chill in water is to be avoided. If the patient can get warm *and remain warm*, then the treatment will be beneficial. If not—*not*.

In the use of hot air, the danger is in excess. To remain in the hot air till perspiration is induced is necessary to the cure. If the head is much oppressed, the back of the head and neck, even the whole head should be wet often with cold water.

It should always be remembered that artificial heat is weakening, and though persons may live and spend hours in the Turkish bath daily, many have lost health by so doing. The writer speaks from experience.

Numbers of persons have sought her aid after months or years of the Turkish bath. Hereafter she will give some records of experience with these patients, and yet she considers hot air one of the most efficient adjuncts in the cure of disease. Enthusiasts in any form of cure are unwilling to have their way undervalued.

What is called the heroic treatment in water cure has done great harm, and the unskilful use of hot air has been equally mischievous. We should not disuse water or hot air because they have been unskilfully applied.

Inability to work after the disuse of stimulants is to be expected in all cases where stimulants have been hurtfully used. The weakness and suffering will be in proportion to the false stimulation. Tobacco, tea, coffee, beer, &c., have not only overexcited the nerves, but have left their sedative poison in the organism. This must be cast out before natural strength and activity can be restored. There is an effort of the vital force to do this, and it should be aided by proper baths and wise remedial treatment. Patiently bear your weakness, headache, and general good-for-nothingness, and do your best by plain and moderate diet, water cure, and homœopathic remedies to get quit of the evil, and do not be seduced into taking ever so little of the poison that has wrought the mischief to your health.

Asthma is so intimately connected with the state of the digestive organs, that, as a rule, no cure is possible without strict diet. Night attacks of asthma are often hindered by fasting from 3 P.M. People are afraid they shall not take food enough to support them. They ought to have much more fear of having to support their food.

Eggs and bacon will aggravate your bilious condition. Where a disordered liver occasions sleeplessness, an egg taken for supper often causes a night of misery.

Bilious melancholy can only be cured by plain, simple, healthy diet. You need a little instruction in the right way, and a great resolution to make the needed changes, and to do all that the right requires.

Some People think we give too much importance to the matter of health. The souls of men are so much more than their bodies! Yes; but observe that nearly all the works of our Lord were for their bodies. He fed the hungry, He healed the sick, cleansed the lepers, and gave sight and hearing to the blind and deaf, and taught men to be pure and honest to each other.

Mr. Ruskin says England is doomed to an awful retribution. I think good work will save it yet, and there are more than ten righteous men in all our Sodoms. Many places are filthy and rough—we must work to make them "first pure, then peaceable."

BRAIN AND NERVES.

By Dr. NICHOLS.

The brain of man does not differ much in appearance from the brains of other animals. You have a soft substance, with little more consistence than cream; white in its interior, and grey, or ash colour, on the exterior. It is held in place by delicate membranes, and the surface is increased by convolutions, as shown in Fig. 18. The brain is a double symmetrical organ, each portion on one side of the head having its counterpart on the other, so that injury or paralysis of one side does not necessarily suspend its functions.

The best idea of the general structure of the human brain is given by a longitudinal section through its centre, as shown in Fig. 27. The upper and whiter portion is the cerebrum (21),

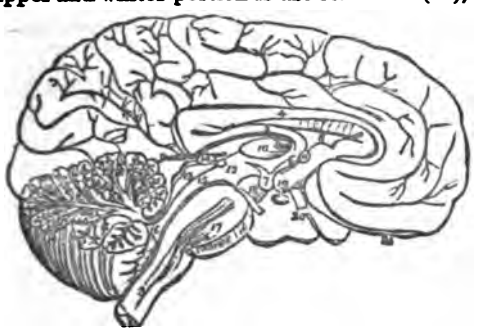


Fig. 27.—Longitudinal Section of the Brain.
Inner surface of left hemisphere and divided cerebellum, showing the arbor vitæ.

marking the position of the optic nerves; the darker portion, with its fern-like form, is the cerebellum, or little brain, lying at the lower back part of the head, and the stalk-like portion from which the brain seems to expand like a fruit, is the medulla oblongata (17), and the beginning of the spinal chord (3).

No inspection of the brain could give us any idea of its functions. One can form no idea of the uses of any part of it from its form or appearance. There is no perceptible division into phrenological organs. We can trace the nerves of sight, hearing, smell, taste, feeling, and motion, into the brain; we know that when this nervous connection is interrupted, sensation and motion are destroyed. The brain is proved to be the central organ of conscious life; but how it is so does not appear from its structure. A microscopic examination does not throw much light upon it. Brain matter may be seen in Fig. 28, a mixture of nerve tubes, blood-vessels, and cells or globules, cells of curious forms, but showing nothing which would give us any idea of the machinery of thought, will, memory, or imagination in this creamy stuff, which is 95-100ths pure water, and the rest tubes, membrane, cells.

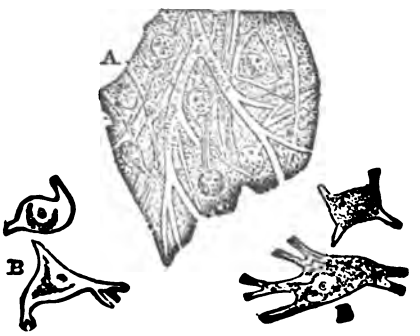


Fig. 28.—Brain and Nerve Matter.
A, ganglionic globules, nerve tubes, and blood vessels; B, globules from crus cerebri.

The nerves, which seem to be but extensions of the brain—nerve matter carried into the remotest parts of the body, are soft white tubes, as shown in Fig. 29, filled with cellular matter (3), and terminating in loops, both in the muscles, as already shown, and in the organs of sensation.

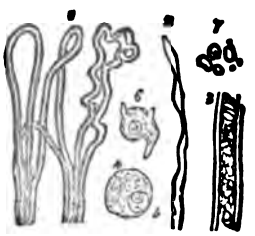


Fig. 29.—Minute Nervous Structure.

Press on a nerve or divide it and its function ceases, but a divided nerve may re-unite. It is sometimes necessary in surgical operations for neuralgia to cut out a piece of the nerve. A knock on the head will produce unconsciousness and general paralysis of the voluntary muscles. The heart continues to beat, the lungs expand, all the involuntary, vital functions go on, for they have a nervous system of their own in the body—the nervous system of organic life, or ganglionic system. The brain, though the seat of consciousness, thought, and volition, is not necessary to the life of the body. The bodies of infants are sometimes formed without brains. A turtle lives for days with its head cut off. The system is built up, and all its unconscious interior work—of nutrition, circulation, secretion, excretion—carried on by the nerves of organic life. The brain and its nerves of sensation and motion, and all its powers of thought and feeling, are built up and nourished by, and rest upon, the nervous system of organic life, which has its ganglia, little brains, or vital centres near the heart, the stomach, in the pelvis, and along the spinal column, communicating everywhere with the nerves of the cerebro-spinal system.



The Brain Exposed.

The nerves of organic life control all the more important processes of the bodily life. They preside over the digestion of our food, the formation and circulation of the blood, its purification by the removal of the waste matter of the system, the action of liver, kidneys, and the myriad glands of the intestines, skin, and lymphatic system. The nervous systems of insects (Fig. 30) have a close resemblance to the human ganglionic system.

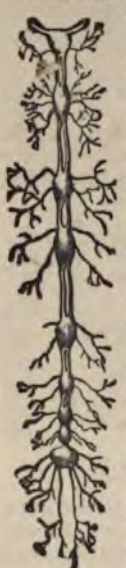


Fig. 30. Nervous System of Insects.

Prick the skin anywhere with the finest needle, and you touch nerves of sensation. The blood which follows the prick shows that you have pierced blood vessels, and the organic nerves everywhere accompany these, and preside over their functions. It is the same in the whole interior of the body, only that nerves of sensation are not so fully distributed where they are not required; but the entire body is a mass or network of nerves, so that if all other matter were destroyed, the nerves would perfectly define the form of every organ. This is true also of the veins and arteries.

The mode of action of brain and nerves is but little understood. We observe certain phenomena, but do not know how they are accomplished. The action of some force at the end of my finger makes an impression of pain, or roughness, hardness, smoothness, which impression is conveyed, somehow, by the nerves to the brain; but how a very soft tube, filled with a milky fluid, can carry sensations of heat, cold, form, texture, pleasure, or pain, or how the brain can convert them into ideas of bodies, passes all comprehension. It is one of the mysteries of life. No more can we understand how the mind, through the medium of the brain, can play upon all the muscles of the body as an organist, pressing upon white and black keys, plays upon all the pipes of an organ. Another nervous action is also required. We must not only be able to contract a muscle, but to know how much it is contracted—to feel, and so limit and regulate, the action we produce. This may be a modified action of the nerves of sensation, and how nice this must be those know who have tried to walk on a rope or perform the more difficult feats of balancing and the lighter gymnastics.

It is not needful to point out the niceties of nervous distribution. Accurate anatomy is only needful for the surgeon. It is enough for us to have some general idea of the distribution and function of the nervous system—and useful, perhaps, to know how little can be known of its mode of action.

There is no doubt that the brain is the seat of conscious sensation—that it is, in a certain sense, the organ of the mind. By it, and its antennæ, the nerves, we make all our observations, and receive all our sensations. We remember, we imagine, we combine our impressions and recollections, we think, calculate, contrive, invent. With the brain we love and hate; we believe, hope, reverence; we desire, dread, and have the emotions of pride, vanity, scorn, ridicule, joy, sorrow, conscience. But how a watery pulp, which people cook and eat, can become even the material instrument



The Nervous System.

of all the faculties, sentiments, emotions, and passions of man, passes knowledge. We know, however, that a slight pressure on the brain will produce unconsciousness—that disease in the brain will produce loss of memory,

loss of mental power, and every kind of mental derangement. In this life, in its ordinary phases, sensation, thought, memory, and will—all mental powers—depend upon the condition and action of the brain. The larger the brain, other things being equal, the greater the mental power. The finer the quality of the brain, the more delicate its organisation, the finer the quality of thought and feeling.

As the human mind is composed of a great variety of intellectual faculties, sentiments, propensities, it is natural to suppose that the brain is divided into as many distinct organs. There is no indication in the brain itself of such a division; but this does not prove that it does not exist. We refer our intellectual operations to the forehead; our higher sentiments to the upper part of the brain, our lower sentiments and propensities to the lower and back portion. If we can make any such division, there is no limit to it, and every distinct faculty must have its organ. If there is a portion of the brain devoted to the perception of form, and another to mathematical calculations, another to the perception of tones, etc., and if differences in the strength of these faculties correspond to the development of such portion of the brain, we have the basis of the science of Phrenology. If the brain, as a whole, is engaged in every mental operation, we can see why a man with a large brain should have more mental power than one with a small brain, but we cannot see why men should differ as widely as they do in character and intellect—why one should have a talent for music, another for mathematics, a third for painting, or poetry, or engineering. Division of labour, and a distinct organ for every distinct function, seems to be the law of life. But in almost everything we do, many faculties come into play, and there must be a combined action of many organs. There seems, therefore, to be a necessity for some combining and directing power—something which shall preside over, control, and direct, all the organs of the mind, as the mind or will controls the nerves and muscles — organs of voluntary motion.

There must be a centre of consciousness, of the sense of personal identity, of will—of the unity of life which feels and governs our whole being.

"WHEAT is rich in the phosphate of lime, but it lies in the bran chiefly; it therefore follows that white bread is a deficient article of diet, especially when a large amount of mental exercise is required of the brain. Beans and peas are rich in the phosphate of lime, and should also be used freely. Pliny assures us that the pea and bean soothe the mind, and produce evenness of temper; they are also useful in all cases of nervousness and sleeplessness. The leguminose being highly alkaline, if there is any acidity in the stomach or bowels, a chemical action takes place, and carbonic acid is generated; but this effect soon passes away. Any acidity in the stomach or intestines causes fretfulness and irritability of temper. A moderate and regular use of the leguminose will effectually cure these evils."—The *People's Friend.*

THE FATE OF PAUL MORPHY.

PAUL MORPHY, the famous chess-player, is in a New Orleans asylum hopelessly insane. He was born in that city in 1840, of wealthy Creole parentage, and his adoption of the game as a business, not only offended his relatives, but occupied the years in which he might have achieved success in some other career. He returned to his home suddenly and thoroughly disgusted with chess—and so prejudiced against it that he has never since played. He has subsequently led an idle, morose life. His daily routine existence involved a walk through some of the streets of New Orleans every morning, where his dapper little figure—always scrupulously well dressed—became as well known and as regularly looked for as the noonday bell. After his daily promenade he retired from public gaze until evening, when he appeared in his box at the opera, where, it is said, he never missed a night. It is further related that during these years he permitted no friendly acquaintance; he was never known to associate with anybody but his mother, and persistently repelled advances from those who, having been friends of his early youth, desired to renew their associations. He lived a strange life, a strange, moody, and peculiarly mournful man. About a year ago he began to lose his mental control, and several months ago was put in a private asylum.

DREADFUL MASSACRE — THREE HUNDRED CHILDREN KILLED.

ON Tuesday, Jan. 11, an inquest was held in Marylebone on the body of an infant of three months. The father and mother went to bed at 2.30 Sunday morning, and at 9 the child was found dead. Dr. Times (*O mores!*) said the poor little baby had died for want of fresh air—defective ventilation. Verdict, accidental death—the accident, namely, of the father and mother of a three months' baby tumbling tipsy into bed with it at half-past two o'clock of a Sunday morning. The deputy-coroner said the frequency of these cases was alarming. Upwards of 300 children were suffocated in bed annually in the central district of Middlesex alone. A very large proportion of those suffocations occurred on Sunday mornings. Dr. Times said seven-tenths. The next case was as to the death of another infant, who was also found dead in bed by its parents on Sunday morning, the cause of death being suffocation by being deprived of fresh air. Three hundred babies smothered to death every year by drunken parents in one section of London, and seven-tenths of them on Sunday mornings. Is or is not this worthy of the attention of Her Majesty's Home Secretary?

THE OLIVE.

WILLIAM FARLEY, who has recently contributed to the *Gardener's Chronicle* an interesting account of his two years residence in Syria, thus writes:—The olive has become inseparably connected with one of the earliest records of the human race. Repeated references are made in the Scriptures to its beauty. It needs an educated eye to appreciate the effect of its silver-like leaf, but it is refreshing to ride through one of these groves when clothed with flowers, or when bowed down with fat and oily berries. Of all fruit-bearing trees the olive is the most prodigal of its flowers, but not one in a hundred comes to maturity. The tree is of slow growth, and except under peculiarly favourable circumstances, it bears no berries until the seventh year; nor is the crop worth much until the tree is ten or fifteen years old; then it is extremely profitable, and continues to yield fruit to extreme old age. There is little labour or care of any kind required, and, if long neglected, it will revive when the ground is dug or ploughed, and begin afresh to yield as before. Vineyards forsaken die out almost immediately, and mulberry orchards neglected run rapidly to ruin, but not so the olive. If the olive bore every year its value would be incalculable; even with this deduction it is the most valuable species of property in the country. Large trees, in a good season, will yield from 10 to 15 gallons of oil. The fruit is indispensable for the comfort, and even the existence, of the mass of the community. The berry, pickled, forms the general relish to the farmers dry bread. When he goes to the fields at early dawn, or sets out on a journey, he has no other provision than olives wrapped up in a quantity of paper-like leaves; and with this he is contented.

A SUBSTITUTE FOR BUTTER.

BUT the grand success was oil on toast. Put the toast on a plate, pour the oil over it; sprinkle over and mix with it a little salt, and over that again dust the smallest breath of pepper—for we don't care for condiments, and prefer to omit them: but we used them as advised for experiment's sake, hoping, with the improved education of our palate, shortly to leave them off. Delicious as we knew it to be, we did not expect to like it so early. But already the oil and toast has become a general favourite, and the oil bottle a domestic, or at any rate, a Dietetic institution. With a few trials—to some at the very first trial—the strangeness disappears, the oily flavour is not apparent, and the dish becomes a really charming relish. Mr. A. may praise his ketchup as much as he pleases; Mr. B. may revel in his potato pie; Mr. C. may glory in his "Lancashire oatcake," but give us brown toast and the oil bottle!

How has the palm-tree afforded sustenance for the sons of the desert for ages; how has the fig-tree been loaded with praises; and how has the vine become immortal in song and story? Then give us date, and fig, and grape. We welcome them all. They *are* good gifts of God: how good our feeble praise would fail to tell. But give us, too, the olive, and let us thank God for one blessing more.—R. BAILEY-WALKER, Esq., in *North of England Review*.

SPEED AND ENDURANCE OF THE DROMEDARY.—Mr. Morgan (*History of Algiers*) says: "I saw one perfectly white all over, belonging to Lella Oumane, princess of that noble Arab Neja, named Heyl ben Ali, upon which she put a very great value, never sending it abroad but upon some extraordinary occasion, when the greatest expedition was required; having others, inferior in swiftness, for more ordinary messages. They say that one of these Assharies will, in one night, and through a level country, traverse as much ground as any single horse can perform in ten, which is no exaggeration of the matter, since many have affirmed to me, that it makes nothing of holding its rapid pace, which is a most violent hard trot, for four-and-twenty hours on a stretch, without showing the least sign of weariness or inclination to bait; and that then, having swallowed a ball or two of a sort of paste made up of barley-meal, and maybe, a little powder of dry dates among it, with a bowl of water, or camel's milk if to be had, and which the courier seldom forgets to be provided with in skins, as well for the sustenance of himself as his Pegasus, the indefatigable animal will seem as fresh as at first setting out, and ready to continue running at the same scarcely credible rate for as many hours longer: and so on from one extremity of the African desert to the other, provided its rider could hold out without sleep and other refreshments."

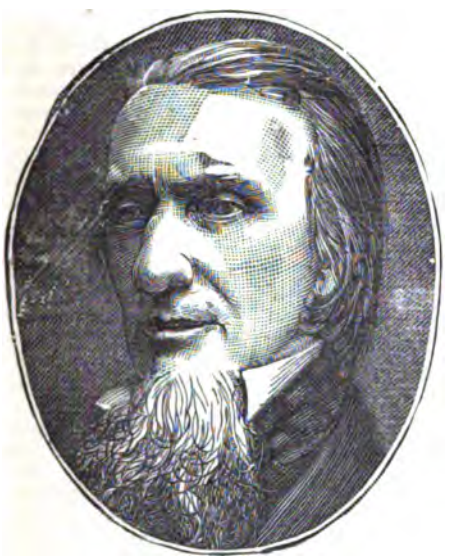
FAT CATTLE.—A few years ago a London fog caused the death of a number of fat cattle at the Agricultural Hall Show. The fog enmeshes smoke and other atmospheric impurities, and the mixture is not the best article for respiration. But the cab horses did not die of it, nor other animals in any reasonably healthy conditions. The animals which died were already at the point of death from want of exercise and overfeeding. Their hearts were loaded with fat; they could not breathe; they were apoplectic. Every animal shut up and fattened is thereby diseased. The geese, whose feet are nailed to the floor that they may be stuffed until their livers swell up to the proper size for making Strasbourg pies—*pâte de foi gras*,—would die of liver complaint if not killed. All stall fed or pen fattened animals are diseased, and a cause of disease in those who eat them. *A word to the wise.*

THOSE who want a genuine brown bread, pure, healthful, and delicious, can have it with the least possible trouble by using our "SELF-RAISING WHOLE WHEAT MEAL." It is simply perfect. You have only to mix the meal with water, a little salt if you like, and put it in the oven. It rises instantly. Milk and water, or a great spoonful of olive oil to the pound of meal, will make it short and crisp as the nicest cake. This meal is made of the best wheat that can be found in England, and the self-raising elements are of perfect purity and salubrity. With such meal any child can make a loaf of *perfect bread*.

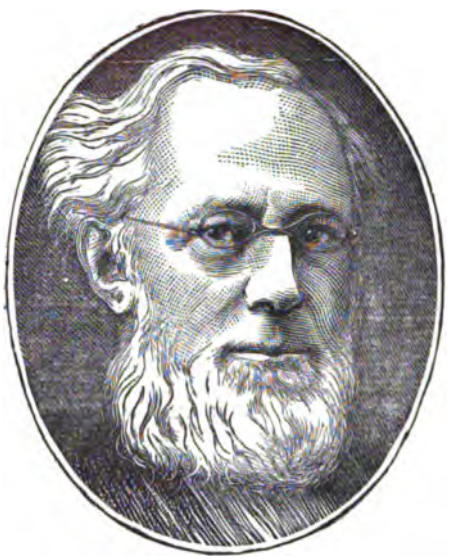
THE DIET QUESTION.

WITH PORTRAITS OF

FOUR LEADING VEGETARIANS.



PROFESSOR NEWMAN.



ISAAC PITMAN.



W. GIBSON WARD.



JOHN DAVIS.

At the present time when animal food is so dear and not the least likely to become cheaper, it may not be amiss for flesh-eaters (who doubtless form the great bulk of our readers) to listen to some of the arguments urged by Vegetarians in favour of their system of diet. In the first place it is plain that animal food is not of absolute necessity, as some of the finest races in the world—and these not merely in hot climates—have been reared on vegetable food. The Scotch and Irish contrive to breed some of the finest specimens of men and women in the world on vegetable diet, and we have heard it stated that the Scotch have shewn symptons of degeneration in cases where they have abandoned the old-fashioned oatmeal porridge in favour of the modern dietary of butcher's meat and tea. Again, the Finns, who are mostly Vegetarians in their diet, are a well-grown race, while the flesh-eating Laplanders, inhabiting the same climate, are almost dwarfs. Further, it is claimed that Vegetarians enjoy especial immunity from sickness, and are rarely, if ever, attacked by epidemic disease. The adoption of Vegetarianism puts an end at once to much of the torture inflicted on the brute creation, the bleeding of calves, the crimping of cod, the skinning of eels, the boiling alive of shell fish, besides all the more legitimate butchery of the slaughterhouse, and it saves people from the risk of illness produced by eating tainted or diseased meat. It is, moreover, claimed that the structure of the human frame is more analogous to that of the graminivorous than of the carnivorous animals, and that when we eat flesh we only eat vegetable products at second-hand. And if people should allege that although this may be chemically true, a beefsteak is vastly more appetising than the oilcake and mangold wurzel out of which it is formed, we have only to say to Paterfamilias in conclusion Look at the price of meat compared with other wholesome food, and we believe that if he were to promise the ladies of his family that the money thus saved should be expended on articles of dress, many of the fair sex would hoist the Vegetarian flag. And now, without further preface, let us proceed to our four Vegetarian biographies, premising that our portraits are from photographs as follows:—Prof. Newman, by M. Guttenberg, Bristol; Mr. Pitman, by Mrs H. R. Williams, Bath; Mr. W. Gibson Ward by C. Smith, Ross; and Mr Davie, by J. G Tunny, 93 Princes Street, Edinburgh.

Francis William Newman, younger brother of the well-known Dr. John Henry Newman, was born in London in 1805, and educated at Ealing and at Oxford, where he took a double first-class. He was Fellow of Balliol College from 1826 to Midsummer 1830, and more recently (1846-1863) Professor of Latin in the University of London. In July, 1835, Mr. Newman married Maria, second daughter of the first Sir John Kennaway, Bart. His works are numerous, and distinguished for wide scholarship and great originality of thought, while his contributions to the minor literature of the time in different magazines have been extensive and potent in their influence. Professor Newman has travelled for several years in the East, and is an entire abstainer from the use of tobacco and intoxicants. He became a Vegetarian so recently as 1868. "I cannot pretend," he writes, "that Vegetarinism has made my muscle harder. But it has immensely improved my digestion, and given me an increased sense of delight in being alive."

Isaac Pitman, of Bath, the inventor of Phonography, born at Trowbridge, Wilts (of which place the poet Crabbe was formerly rector), on the 4th of January, 1815, was the third of a series of eleven very remarkable sisters and brothers. In early life a clerk, then a schoolmaster, having first learned Taylor's shorthand, he set himself to popularise it, then to improve it, and next to invent, and give to the world a more perfect system of his own. In this work he has steadily persevered for years with an energy and industry which is seldom parelleled. His habits are spoken of as "regular and almost ascetic." He retires and rises early, summer and winter alike. He seldom leaves his work, visits, or sees company. He still sits at his desk without spectacles, can read the smallest type, and writes with as steady a hand at sixty as at thirty. He has been a Vegetarian for upwards of thirty-four years.

W. Gibson Ward, of Perriston Towers, Ross, a Herefordshire squire, came originally from Birmingham, where he was born in 1819. Mr. Ward comes of a strong stock by both parents, has great physical vigour and power of endurance, and constantly undertakes a large amount of work for the press, travelling, the delivery of public addresses, &c. He has abstained from animal food for about twenty-four years, and from intoxicants for a much longer period, while he has never smoked tobacco. So much for "plain living and high thinking." Even now at fifty-six years of age he looks not more than forty-six. "Depend upon it," said the late Richard Cobden to him on one occasion, "if any great work is to be done in this world, it will be done by the water drinkers." He has worked long and earnestly for the elevation of the agricultural labourer. He has been from the first a trustee of the National Agricultural Labourers' Union, of which he was one of the originators, and a constant contributor to its *Labourers' Union Chronicle.*

John Davie, of Dunfermline, a successful merchant, was born at Butterflat, Stirling, in 1800. He became a total abstainer in 1830, and has been a Vegetarian for a quarter of a century. He has given active and benevolent support to the cause of total abstinence, peace, the Permissive Bill, Good Templary, Hydropathy, Vegetarianism, &c. He is a strong opponent of compulsory vaccination, an earnest supporter of the Howard Society, and of many educational and other movements both in England and Scotland. He is managing director and one of the originators of the Waverley Hydropathic Institution at Melrose.

It would have been easy to provide a much larger number of portraits of "eminent Vegetarians; such names as those of Alderman

Harvey, one of the Mayors of Salford; Joseph Brotherton, the well-known Vegetarian member of the house of Commons; and James Haughton, J.P., of Dublin, readily occur to one among those of the past generation. Among contemporaries could be mentioned Mr. Edwin Collier, member of a well-known Manchester firm of accountants, who is a whole-life Vegetarian; Mr. W. Hoyle, the Lancashire political economist, and author of "Our National Resources, and How they are Wasted;" Mr. T. H. Barker, of the United Kingdom Alliance, one of the most active Secretaries we know; the Rev. James Clark, of Salford, who ministers to a Vegetarian community; Mr. W. E. A. Axon, M.R.S.L., F.S.S., one of our most fertile *littérateurs*; Mr. Thomas Baker, the barrister; and the Rev. C. H. Collyns, M.A., of Wirksworth, a hard-working schoolmaster and clergyman. We trust, however, that our readers will approve our selection.—*Graphic.*

The End of Education.—"The sad truth is that the great mass of the people need to be educated in much more than the rudiments of knowledge, for they are deplorably ignorant of the most important things—ignorant of what are matters of life and death to them. Three-fourths of the people are ignorant of the necessity of pure fresh air for the maintenance of health. A large portion have no proper idea of the importance of cleanliness in their persons, clothing, and surroundings. Very few know much about the wholesomeness of food and drinks, or what constitutes a healthy and sufficient diet. Children and youth, from pure ignorance, fall into the most destructive habits and vices. Young girls, from lack of right teaching and direction, have their characters destroyed and their lives wrecked. Young people marry and take upon them the cares of a family, in utter ignorance of all the duties and responsibilities of such a position." — *Human Physiology.*

The Uses of Science.—To live wisely on the earth we must know our relations to matter, elements, and forces, and the vegetable and animal creation. To live usefully and happily with our fellow-men, we must know ourselves and them, and our mutual relations and duties, sympathies and antipathies. Especially must we know the mutual relations of the sexes, and of parents and children, for these are the basis of morals and society. Lacking the instincts which guide the lower animals infallibly into the conditions and modes of life to which they are adapted, we need knowledge, science, the guidance of reason, and an enlightened conscience, which cannot fail to be in harmony with the will of a beneficent Creator. Every portion of this Science of Man needs to be carefully and reverently studied. No part can be rightly or safely omitted. The propagation of the human race, and the hereditary transmission of physical and mental qualities, are subjects of the highest importance to every human being. Nor is it possible to treat of morals and society, and the duties of men and women in their most intimate and sacred relations, without a knowledge of the elements which form the basis of such relations; for I believe that it can be clearly shown that the laws of nature are in perfect harmony with the demands of morality, and that virtue and religion require nothing which is not the highest good of every creature.—*Human Physiology, by Dr. Nichols.*

DIET.

By Mrs. M. S. G. Nichols.

Fifty years ago in New England, where I was born, there was an honest belief among the people that no farm work could be done, no building raised, no hard or cold journey successfully performed, without ardent spirits. The people ate pork in some form for breakfast. Ham and eggs, sausages, cold boiled ham, or fresh pork, made part of the universal New England breakfast. For dinner, if they had not fresh meat, then salt beef, pork, and mutton were all considered necessary. Without their accustomed food and drink they could not work. They were weak and depressed. When the evil of drunkenness began to be severely felt, some farmers resolved to abstain from spirits, and they found it impossible to get help from their neighbours or from hired men. No one would exchange work with the temperance man, no one would hire out with him. Still temperance made its way. Soon there were two or three in a town, and these helped each other, and the rest looked to see them grow pale and faint, and fall by the way. They lived to do harder work than the drinkers of spirits, and to convert a great many.

Forty years ago Sylvester Graham, Dr. Muzzy, Dr. Wm. A. Alcot, and others, rose in New England to preach temperance and abstinence in food as well as in drink. Large numbers of persons left the use of flesh meat. There was just such a fright and outcry as in the first days of abstinence from spirits. They were warned that they would become weak and lose their health, or perhaps become insane. It was said that flesh was the natural food for man. There was much prejudice excited against the *Grahamites*, as they were called, but they lived to live it down. When epidemics of cholera, small-pox, &c., were to be passed through it was plain that the vegetarians had the best of it. They lived in health through cholera, attending upon patients, and I was one who did this without a symptom of the disease. They either did not take small-pox or they had it so lightly as to attend to work during the period of the disease. I took small-pox of a patient who had it in the confluent form. I was my own physician, and attended to practice on the third day. I had the symptoms severely, but they yielded to sweating and bathing, and I had not above three full pustules.

A large body of vegetarians passed through yellow fever without a death. It is said that epidemic diseases stop at the door of the Trappist monastery. I know several Catholic priests who take no meat and no ardent spirits, or tea, or coffee, and I know none who do more or better work.

I know vegetarians who have lived from fifty years and brought up families, who in their turn are bringing up families on this diet, neither eating flesh-meat nor fish. The venerable William Metcalfe, who was living not long since, nearly

ninety years of age, was one of these. It is now full eighty years since he and his most lovely wife became vegetarians. Healthy, earnest workers were they. Thirty years since I was in their family. They had then for fifty years abstained, and their children also. Their grandchildren, and now, I doubt not, great-grandchildren, are doing the same.

From 1838 I determined to disuse flesh meat. The first effect of abandoning a flesh diet, and tea and coffee, was great weakness. I had never had good health. I was a sickly infant, dreadfully drugged. I was a sickly child, and a consumptive woman. I had been almost forced to eat plenty of flesh meat to give me strength, and it had come to seem a necessity to me. I ate it two or three times a day, and I also obeyed that most mischievous maxim to "eat little at a time and often."

I must here observe that the feeling of weakness and faintness in abstaining from stimulating food and drink is always in proportion to the degree of stimulation there has been.

I well remember the faintness—the sense of sinking at the pit of the stomach—that I had to endure for months after my reform in diet.

I had not abstained from flesh as food, or from tea, coffee, and other stimulants, merely for my health, or from persuasion, but from principle, and this involved much more than my individual health. It involved the health of all who could be convinced by facts and truths. I was convinced of the truth that human life could rise to a higher elevation, to a far greater use, and beauty, and health, and happiness, by abstinence from flesh as food, and also from the stimulants in general use. Facts gathered from different portions of the globe—from India, Scotland, Ireland, and from the lives of distinguished individuals—all confirmed my belief in the virtue of abstinence.

The cruelty involved in providing animal food, and the expense that might form a fund for better use, all weighed much with me. The disease and filth, caused by rearing, fattening, and butchering animals for food, were also weighty considerations.

I examined the livers of animals supposed to be in health when killed, and I found ulcers, from the size of a pea to the size of an egg, and sometimes larger. I saw that this matter of disease could not be rendered harmless by cooking. One of the surgeons with whom I studied called my attention to the fact that the lard sold in the market was mingled with pus, from the diseased condition of the fattened swine. He remarked to me—"It is as much corruption as the matter of an abscess."

I was convinced that by adopting a purer diet, in which bread and fruit should predominate, and refusing to make our bodies part and parcel of diseased flesh, that our health must improve immediately, that our tastes, and loves,—in a word, our lives,—would become purer also, and that the mind would inevitably gain in clearness. Disease weighs often as heavily on the mind as on the body.

Improvement in the culture of the land fruit and flower gardens taking the place of styes and shambles, was a pleasant consideration. Any one who has been obliged to remain in the vicinity of slaughter pens, and especially one who has seen the vast slaughter pens in America, where thousands of hogs are killed, mainly for lard, feel keenly the contrast between these and the fruit and flower gardens that bless many portions of America, England, and the European Continent.

So long as animals must be reared for food, so long men, women, and children must be employed in this cruel and unclean work.

It has been said "conceive of slaughter and flesh eating in Eden!" I add, conceive of the rearing, fattening, diseasing, carrying by rail and by sea, and the final slaughtering of animals in the millennium, in that day when nothing shall hurt or destroy. A gentleman, who belongs to the Society for the Prevention of Cruelty to Animals, told me of going on board ships loaded with animals coming into an English port after a storm. At all times the animals imported are crowded and kept through the voyage in an unhealthy condition. But when my friend boarded the ship they lay fallen upon one another inextricably entangled, their horns broken off, their eyes gouged out, legs broken, and bodies bruised, unable to move, or even moan—many of them. They were consumed by fever and thirst, and they were breathing, those who lived to breathe, a most pestilential atmosphere. These poor carcases were to be served up as food to men and women, some of whom belonged to the Society for the prevention of cruelty to animals. How could they better promote cruelty than by requiring and paying men to procure this food for them?

I heard my friend's tale of the terrible cattle ships, and I cried out, with shuddering anguish, "How could you men eat meat again?" People think they must eat meat, in order to live, and have strength to work. They say to me, "You could not live as you do, and work as I do."

For nearly forty years I have sustained arduous labours on a diet from which flesh has at all times been excluded. I sometimes eat fish and take butter and eggs; still, bread and fruit form the larger part of my diet. I have never been well in all my life. But for my simple and healthful mode of living, I should long ago have died of consumption like others of my family. Still, with this liability, and with much suffering from other forms of disease, I have laboured night and day in my profession—not merely writing prescriptions, or dealing out pills or powders, but putting my own hands to the work of saving patients by packs and baths, watching and superintending the work of attendants, lecturing, writing, housekeeping, and often doing domestic work, for I was born a cook, and loved to have my nice preparations of food enjoyed *and praised*. I have studied constantly also. If any flesh eater, or drinker of ardent spirits, tea or coffee, has done more, or better work for the world than I have, let them have the praise, but *not* their diet or drink.

I have spent days and nights in the sick-room

I have been exposed to contagion in many ways; I have laboured, I have suffered; I have been reduced from affluence to poverty; I have had the added anguish of seeing my country divided into two hostile camps, brother against brother; my husband and I on one side, our nearest relatives on the other. After exile and poverty, and the trials incident to both, there came to us a great sorrow, and I wept myself blind, but I was never willingly unfaithful to the gospel of health that had been given me years before. I have become resigned. I have regained my sight, and now when I have seen three-score years, my health is better than ever before. I can do more and better work than at any time in all my life.

My diet is more simple and strict, instead of being less so. I take no drink, as a rule, but water. I never take spirits, tea, coffee, cocoa, or malt liquors. It is now nearly forty years since I have tasted flesh meat—since I have dipped my hands in blood, or been accessory to the cruelties practised upon animals, to procure a form of food that increases sin, sickness, mourning and misery.

There is something so absurd in the assertion that we cannot live and labour without flesh meat, that it hardly merits a serious answer. The Trappist monks have reclaimed the worst land, and have done the hardest work, and maintained the best health on a diet from which flesh, fish, milk, and eggs are excluded. I know to-day some of the hardest working men and women in England and America who eat no flesh and drink no tea, coffee, or spirits. I know vegetarians and *tea*-totallers who live well, and whose work is equal to the best. Other things being equal, I consider their chance of life and health much better than that of the flesh eaters. Clearness of mind, freedom from depression, and firmness of health, are worth a little self-sacrifice. It is but little, for very soon increased appetite and enjoyment of food and drink are the reward of temperance and abstinence. People who think they shall die from weakness or bad nourishment if they do not eat flesh and drink beer or spirits, or at least tea and coffee, know little of the history of the world or the Church. I have read the lives of seventy-three Saints who were vegetarians. These men and women did great works and endured great hardships, and Catholics fully believe that they worked miracles; and yet puny people who stand in their places to-day, and might have more or less of their privileges and usefulness, are crying out that they cannot live without flesh, and tea and coffee, and wine and spirits. They say they should not be able to do their work. I for one should be willing to see their work wait till they had reformed their lives and had got able to live as their betters did, in the days when mighty works were done by men of true faith.

What all honest people need is instruction. It takes knowledge, firm conviction, strong resolution, time and perseverance, to get to the other side of bad habits. Health, freedom, reliable ability to work, to resist temptation, and also to resist disease, are an exceeding great reward. I am convinced that there are many in England who seek purity of life who would gladly promote a purer and healthier birth as a means of redeeming the race, and who to this end are willing to live on a simple and healthful diet from which flesh is excluded. Bread, fruit, vegetables, fish, milk, and eggs, offer a great variety of food.

There are many who are ready to abstain from hurtful drinks. Would it not be well for these to join hands and sustain each other, and give a knowledge of health laws to their fellows? Many people have unhealthy habits that are as seed bearing a plentiful crop of disease and sin, who do not know it. They pray constantly to be delivered from evil, and they do not know what is evil. Their table is a snare. It provokes to ill-temper, sickness, sin.

Unity is power. Let there be light. Let us seek points of agreement. For nearly twenty years I have belonged to an association founded on a pure diet—that is, on abstinence from hurtful food and drink. We obey a rule simple, and yet potent for good. Any one fully resolving to live a purer life, and to abstain from things hurtful to this end, may send to me for the rule of this Hygienic Association. Each person sending his or her name, must make some offering towards spreading light on the great subject of health and purity. As persons interested in hygienic reform become known to each other, as they unite their energies and their means, ways will open that we do not now see to do good—to fulfil the prayer, "Thy kingdom come, Thy will be done on earth, as it is in heaven."

DIGESTION.

It is a pleasure to find and a duty to copy anything so sensible and scientific as the following observations on the physiology of digestion in the *Sanitary Record*. If people will make a good selection of food, as to quality, a careful preparation as to cookery, and exercise a wise discretion as to quantity, and then follow these rules, doctors might emigrate, and all drugs follow them; provided, of course, that pure air and pure water, and all other conditions of health were likewise regarded.

"1. Food for the supply of the daily wants of the system is most rapidly and thoroughly digested when taken early in the day, ere the nervous and secretive forces are exhausted by toil. 2. Rapid digestion in the early part of the day contributes to the immediate demands of motion and innervation. 3. Food for the repair of the continuous wear and tear of the tissues is in less immediate request; the completeness of its solution is of more importance than the rapidity, and it is best taken toward the evening, when an opportunity is afforded for its leisurely absorption during sleep. 4. The duration of digestion bears a proportion to the quantity of food eaten. 5. In youth the digestion is quicker and the stomach sooner emptied than in grown-up persons. 6. Rest before meals makes the digestion more complete. Exertion immediately before meals retards digestion, and exertion immediately afterwards deranges it. 7. Sleep retards digestion, but makes it more complete. 8. Alcohol retards digestion and renders it also incomplete. 9. Earnest pre-occupation of mind quickens digestion, and encourages the absorption of fatty and saccharine matters; but its effect on the complete solution of albumen is doubtful."

SOLEMN VOW OF ST. GEORGE'S COMPANY.

In the October number of *Fors Clavigera*, Mr. Ruskin gives the following "statement of creed and resolution, which must be written with their own hand, and signed with the solemnity of a vow" by every person received into St. George's Company:—

"I. I trust in the Living God, Father Almighty, Maker of heaven and earth, and of all creatures visible and invisible.

"I trust in the kindness of His law, and the goodness of His work.

"And I will strive to love Him, and keep His law, and see His work, while I live.

"II. I trust in the nobleness of human nature, in the majesty of its faculties, the fulness of its mercy, and the joy of its love.

"And I will strive to love my neighbour as myself, and, even when I cannot, will act as if I did.

"III. I will labour, with such strength and opportunity as God gives me, for my own daily bread; and all that my hand finds to do, I will do with my might.

"IV. I will not deceive, or cause to be deceived, any human being for my gain or pleasure; nor hurt, or cause to be hurt, any human being for my gain or pleasure; nor rob, or cause to be robbed, any human being for my gain or pleasure.

"V. I will not kill nor hurt any living creature needlessly, nor destroy any beautiful thing, but will strive to save and comfort all gentle life, and guard and perfect all natural beauty, upon the earth.

"VI. I will strive to raise my own body and soul daily into higher powers of duty and happiness; not in rivalship or contention with others, but for the help, delight, and honour of others, and for the joy and peace of my own life.

"VII. I will obey all the laws of my country faithfully; and the orders of its monarch, and of all persons appointed to be in authority under its monarch, so far as such laws or commands are consistent with what I suppose to be the law of God; and when they are not, or seem in anywise to need change, I will oppose them loyally and deliberately, not with malicious, concealed, or disorderly violence.

"VIII. And with the same faithfulness, and under the limits of the same obedience, which I render to the laws of my country, and the commands of its rulers, I will obey the laws of the Society called of St. George, into which I am this day received; and the orders of its masters, and of all persons appointed to be in authority under its masters, so long as I remain a Companion, called of St. George.

"The object of the Society, it has been stated again and again, is to buy land in England, and thereon to train into the healthiest and most refined life possible as many Englishmen, Englishwomen, and English children as the land we possess can maintain in comfort; to establish for them and their descendants a national store of continually augmenting wealth; and to organise the government of the persons, and administration of the properties, under laws which shall be just to all, and secure in their inviolable foundation on the law of God."

Mr. Ruskin is one of the best of living writers and thinkers. His philosophy is noble and his logic lucid and inexorable. He is a true philanthropist, loving, reverent, and wise. His scorn of what is called political economy—the system by which the cunning cheat the simple and the strong rob the weak, is a noble scorn, and his methods of social regeneration, so far as he has developed them, are simple, natural, and beautiful. No good man who has the gift of faith could hesitate to sign this declaration, and become a Companion of St. George. It deserves to be read over and over, committed to memory and learned by heart. It is not Christian in name, for a Mahomedan could sign it, but it is Christian in essence and in deed, and it comprehends as nearly as possible the whole duty of man. If all men would live to the fourth clause, what a happy world!—and the fifth reaches further than many will imagine. There are millions of men who never kill any living creature for their food.

It is perfectly demonstrable that there is no necessity for such destruction of animal life. No Companion of St. George, therefore, can kill any living creature, or cause him to be killed, that he may eat his dead body, until Mr. Ruskin has proved its necessity. Every companion of St. George must be a vegetarian. And may we not appeal to the taste of Mr. Ruskin, to his sense and love of the beautiful, to say whether the slaughter houses and butchers' shops scattered everywhere are not as bad as the steam engines and furnaces? Does he expect any butcher, or sausage maker, ever to sign his admirable creed and vow and follow his vocation as Companion of St. George? He would transform this island into a new Eden of beauty and joy; but Eden has no butcheries.

The light can be a curtain as well as the darkness.

There is mercy which is weakness, and even treason against the common good.

There are three degrees in labour: the master-workman, the workman, "the hand."

There are three degrees in genius—which may be termed divine, diviner, divinest.

SOLEMN VOW OF ST. GEORGE'S COMPANY.

To the Editor of the HERALD OF HEALTH.

DEAR SIR,—I have been, in common (no doubt) with many others, pondering over this remarkable and novel document, which appeared in the December number of the HERALD, and trying to reconcile its applicability to myself, but cannot see my way clear to the declaration. In your admirable comments, which I heartily endorse, you say, that "if all men would live to the fourth clause what a happy world, and the fifth reaches farther than many will imagine." I think the latter remark applies with equal force to Clause IV., which implies much more than it states, and were it carried into practical effect would take from under us much that is relied upon for daily sustenance, household warmth, and many personal comforts. If I am "not to hurt, or *cause* to hurt, any human being for my gain or pleasure," what about the butcher, poulterer, and fishmonger, also my baker, tailor, and shoemaker? What about my coal merchant? And if all is true that the *Daily Telegraph* lately communicated to its readers about the plucking of feathers from *live* geese, &c., what about the feather bed which society takes its nocturnal rest upon, and last, though not least, how about the universal condiment, salt? Do we not "*cause hurt*" to a numerous class of human beings for our "*gain and pleasure*" in the production of the articles enumerated? Undoubtedly we do, and to an extent that society in the aggregate hardly knows or cares for. These requirements appear to have become more or less necessary to our artificial condition, from which the Solemn Vow of St. George does not point out a ready escape. Am I right? If not, will you or Mr. Ruskin enlighten me? I am tolerably well aware that society is out of joint, but who is to become the true bone-setter (to use a surgical phrase)? Is it the Editor of the *Herald* or Mr. Ruskin? Perhaps he or you will kindly inform your readers in an early number how we are to get over these grave difficulties. As a subscriber to your periodical (which, by the way, is worth its weight in gold), I am fully aware that you, Mr. Editor, will make short work with several of my troubles, but I almost doubt your ability, or that of Mr. Ruskin, to tackle the whole of my grievances. I am a man of some faith, and in my time have cleared away many a physical obstruction to my well-being, and hope yet to advance to that higher standard of health which the *Herald* foreshadows, but I am only one. There must be a legion seeking enlightenment—looking for the true guides—on this most vital of all questions, the regainment or reclamation of individual and national rectitude to that England of the future, when humanity shall have been educated in the laws of life, and become acquainted with its normal requirements and responsible duties. To such a phase of society the civilisation of to-day will appear a counterfeit.

A very able and interesting article from the pen of Mrs. M. S. G. Nichols in the September number of the HERALD OF HEALTH, shadowed forth the groundwork of a School of Life for children and women, where the teaching of God's laws of health, and preparing pupils for the duties of home and society, should form the base and underlie all education, *health and the means to preserve it being the first and paramount consideration.* To the establishment of such "Schools of Life" (for herein I think lies the true solution of the problem), I trust your efforts and those of all good men and women will be directed. There is ample room and verge enough for a few more high priests of humanity, such as yourselves and Mr. Ruskin, to lead us out of this quagmire of the 19th century. There will then be no want of adherents to the St. George or similar companies.

January 1, 1876. R. V. W.

PUNCH AND *PORCUPINE.*

"PUNCH" honoured "How to Live on Sixpence a-Day" with a column of verse a few weeks ago, and now we have a column of prose in the Liverpool *Porcupine*, whose fretful quills are often as sharp as those of Mr. Punch. The *Porcupine* says:—

"Dr. Nichols, of Malvern, has written a treatise giving instructions how to live on sixpence a-day; and, if the struggle between labour and capital is to be a long one, we would certainly recommend the managers of trades' unions to invest in this work and distribute copies broadcast over the country."

Which is just what we have been doing, are doing, and mean to keep doing. Then *Porcupine* quotes Mr. Buckmaster, as we have done in another column, and says,—

"What he insists upon is, that it does not matter whether the tissues are repaired with nitrogen obtained from vegetable or animal sources, but nitrogen there must be. Now, it may become too dear to get nitrogen out of animal food, just as it is too dear to dig for gold in Wales; and then, of course, if we are to live at all, we must look for it elsewhere. According to Mr. Buckmaster, the gluten of wheat, barley, and oats, and the legumine of beans, peas, and lentils, are the chief vegetable sources of nitrogen, while the same element is furnished in the albumen of eggs and the casein of milk and cheese. In Mr. Hamerton's recent book, 'Notes of Rural Life in Peace and War,' he describes how the French peasants get along without any meat consumption, except on holidays and at merry-makings, mainly, Mr. Hamerton says, from the dread of extravagance, which they believe to be associated with meat cookery. In many parts of our own country the peasantry do without animal food, simply because they can't afford it; but, as a rule, they take no care to provide themselves with nitrogen-yielding substitutes upon any very regular or satisfactory plan, excepting, perhaps, the Scotch, in their national use of oatmeal. It is too often the case that both men and women who cannot afford meat, instead of taking a little trouble to arrange a 'bill of fare' from the materials within their means, take to bacon and tea and coffee—the tea and coffee being often consumed to an excess which permanently injures and weakens instead of stimulating the frame."

EVERY portion of this Science of Man needs to be carefully and reverently studied. No part can be rightly or safely omitted. The propagation of the human race, and the hereditary transmission of physical and mental qualities, are subjects of the highest importance to every human being. Nor is it possible to treat of morals and society, and the duties of men and women in their most intimate and sacred relations, without a knowledge of the elements which form the basis of such relations; for I believe that it can be clearly shown that the laws of nature are in perfect harmony with the demands of morality, and that virtue and religion require nothing which is not the highest good of every creature.—*Human Physiology, by Dr. Nichols.*

THE STAFF OF LIFE.

Good bread is the staff, or, one might better say, the stuff, of life—what life is best made of. The common bread of the bakers does not quite come up to this description. But a man can entirely live on entirely good bread, eating nothing else for months or years, and finding himself perfectly nourished.

In preparing to carry into operation some of the plans of work set forth in the Herald of Health, we thought it expedient to consult with a good solicitor—one learned in the law, and yet alive to the principles of equity; an honest, faithful man, with intelligence enough to understand our design, and with enough of philanthropy to give it something of sympathy, as well as the advantage of his professional skill and experience. Therefore we went to Lincoln's Inn Fields and found Wm. Wilkinson, Esq., brother of the celebrated physiologist and physician, translator of Swedenborg, and author of "The Human Body and its Relation to Man," Dr. Garth Wilkinson.

In the course of our conversation on "The Food of Health" and other forms of bread food, Mr. Wilkinson took from a portfolio the following paper, on a printed slip, which has been published in we know not what periodical, but which we thought worthy of a further, and perhaps wider, circulation. We therefore asked permission to publish it here, which was kindly granted. We know Mr. Hart very well, and often eat his bread, which, so far as we know, is the best brown bread to be found in London. Here is Mr. Wilkinson's opinion and experience:—

GIVE US BREAD.

Walking in the Strand one day, a few months ago, I was accosted by Mr. H. W. Hart, of 3 Albert Mansions, Victoria Street, who opened upon me by saying "I see you are interested in the great pauperism question. I was at the Conferences of the Society of Arts on that subject, and heard all the fine speeches, but you're all on the wrong tack—you're only dealing with the symptoms, and not touching the disease." I asked him what he meant, and how we could treat the disease, and after teasing me a little by withholding the great secret, he at last said, "It's the bread question. The people are fed upon bread, from which have been eliminated the most necessary and health-giving properties." I told him we always had the best wheaten bread, and "what could be better than that?" "That's just it," he said; "the most essential parts of the wheat have been left out by the miller in order to please the eye, and make the bread white and fine, and in doing that he has removed the bran which contains the silica, and the phosphates and nitrogenous matter which are necessary for life." I was aghast at the discovery, and could only say that I should like to know more about it, and to become a learner of the true cause of pauperism, and of the remedy for it. "Yes," he answered, "the wheat contains within itself all that is necessary for life, but we remove some of the essentials, and how can the people be strong, and healthy, and vigorous, without proper development of their bones and muscles, and how can their brains be active without the phosphorus which their food should contain? Why, a dog that is fed on white bread alone will die of starvation in six weeks; whereas, if you give him the whole meal bread, he will be fully nourished. Try it." I have not tried it, but I am told that Dr. Majendie did, and with the result stated, but I have tried the whole meal bread nearly ever since, and have got to like it so much, that white bread now tastes insipid and unsatisfying. The meal is ground very coarse, many of the grains being little more than bruised, and all the bran and other portions are in it. It is much heavier than white bread, and takes a great deal more eating, and you want less of it, and what you take is much more satisfying. It has the delicious taste of the corn, and is like eating wheat, and it keeps fresh and moist for several days, which alone shows how extremely it differs from the common white bread, which is stale and good-for-nothing in two days. The roughness of it causes it to be much more digestible, and, from personal experience, I should say that there is a great deal of truth in Mr. Hart's statements respecting it.

I have now before me a rather impulsive prospectus of the virtues of the whole meal bread, with medical opinions and analysis, and a list of agents; but what if it be true that the nation is really losing 25 per cent. of its nutriment, by giving it to the pigs and the cattle? Such a thing is quite possible, though it may not be possible to change a nation's habits in any short time, or to bring it to believe that it is wrong on one of the common daily ingrained household habits of the age.

The Northern nations, which live on rye bread instead of wheaten bread, are able to stand the rigours of a climate much more severe than ours. Some of them whom I have known have told me they could not live on our fine wheaten bread, and that it has no staying properties for their stomachs—very nice to eat, but they are hungry again directly. It may well be, then, that there is something wrong in the great bread question, and that we should inquire and experiment, and go back to the days of our fathers, before this fine white and adulterated compound, which we call bread, was invented. Liebig says that whole meal flour, or bread made from the whole meal, contains 200 per cent. more nutritive salts than white flour, or bread made from white flour, or 60 per cent. more nutritive salts than meat, and that whole meal bread is the true staff of life.

Now we have the means of trying this great experiment, and if it be successful, of saving thereby 25 per cent. on the cost in our prisons and workhouses and public establishments, and besides the money saving, we shall have the inmates with plenty of silica and phosphates for their bones, of nitrogenous matter for their muscles, and of phosphorus for their brains. I fancy that these are the three elements in which our pauper and criminal population are the most deficient, and if we can stay pauperism and crime by feeding on Hart's whole meal bread, I shall propose to erect a statue to him higher than those to the Duke of York or Lord Nelson.

Which Board of Guardians will be the first to try the experiment? Mr. Hart offers to supply the bread for all Poor Law purposes at cost price. At present the whole meal bread is dearer than the good-for-nothing white stuff we are eating, and a Company is being formed to devote itself to the Herculean task of benefiting the nation in spite of its prejudices. All the directors and officials are to be fed on the whole meal bread, to give them strength and phosphorus enough for the purpose.

THE DIET QUESTION.

To the Editor of THE HERALD OF HEALTH.

SIR,—While spending the Christmastide with some friends near London, I was attempting to recommend Vegetarianism as being a more natural, and at the same time a purer kind of diet than flesh-meat, as well as containing sufficient nutriment to sustain the system in its full health and vigour. I was met by the following arguments in favour of beef and beer. My friend observed he had lived all his life on plenty of beef and beer, and, as a consequence, was a strong muscular man. (1.) He knew a few Vegetarians, who were generally weak and delicate; and he had known more than one case of death resulting (as he stated) from following a Vegetarian course of diet. (2.) He contended that the English, as a people, had always been famed for their energy, courage, valour, and endurance; while they have generally been a flesh-eating race. (3.) What country can boast of an army and navy so brave as the British? (4.) Again, for what purpose were sheep and cattle sent, if not for food? (5.) They would over-run the country; and can it not be proved from Scripture that animals were expressly given to man as meat—*i.e.*, for food? (6.) Having only had a short experience of Vegetarianism myself, I confess I was scarcely prepared with answers to the above arguments.

Now, Mr. Editor, I should be glad to see, either from your own vigorous and powerful pen, or from any of your correspondents, *facts from experience*, as well as arguments, which will refute the above, and at the same time interest your readers, and especially,

—Yours faithfully,

A YOUNG VEGETARIAN.

January 10th, 1876.

1. *Post hoc propter hoc.* There are plenty of puny and miserable flesh-eaters, and also of stout and ruddy Vegetarians.

2. No doubt weak and delicate dyspeptics, who become so while using a flesh diet, sometimes resort to Vegetarianism in the hour of a cure.

3. The English are well enough—though one was not found equal to three Frenchmen in the Crimea; but the Scotch and Irish, who have for a long time formed the flower of the British army, were mostly fed on oatmeal and potatoes. And how much flesh have the agricultural labourers of England ever eaten?

4. French, Germans, Russians, Turks, Hindoos, and Chinese are nearly as brave as Englishmen.

5. —Or horses, asses, dogs, cats, &c.

6. The Scriptural argument is, perhaps, two-edged. Some people think anything may be proved by the Bible. The first food was fruit and seeds. Flesh came after the Deluge. Riotous eaters of flesh are reprobated. Multitudes were miraculously fed with loaves and fishes, not flesh. We nowhere read of Christ eating flesh. Meat in the Bible means any kind of food. The Jews commonly ate flesh, though not the more objectionable kinds. They also practised polygamy.

What we insist upon as a condition of health is a pure and moderate diet, which we think should consist largely, and *may* consist entirely, of bread, and its equivalents, fruits, vegetables, pulse, milk, eggs. If there is need of more variety, fish comes next; then poultry; and if flesh be eaten, it should be that of clean and healthy animals. But it is certainly true that millions do very well without it.

A writer in *The Hour* some weeks ago asked, "What would England be without her beef?" and went on deploring the cattle diseases created by artificial feeding and breeding. Mr. T. W. Richardson, a life-long Vegetarian, answered him, saying:—"I maintain that beef is not a necessary of life, nor in any respect a source of national vigour. Where was the agricultural labourer thirty years ago who could afford to purchase flesh at all, except a bit of bacon or salt herring for his Sunday dinner? It is a grievous mistake to suppose that beef has anything to do with improving, ennobling, and invigorating the British character, unless the qualities of a bully and a tyrant are esteemed as constituting a claim for that character. I think it right to assure you, sir, that Vegetarians are as capable of performing hard work as the most determined flesh-eater in the community; and when we come to compare their health and longevity, the flesh-eater is nowhere."

THE WORTH OF A DRINK OF WATER.—"For twenty-four hours we did not taste water; the sun parched our brain, and the mirage mocked us at every turn. As I jogged along, with eyes shut against the fiery air, every image that came to my mind was of water—water in the cool well—water bubbling from the rock. . . . Then an unseen hand seemed to offer me a cup which I would have given all I ever was worth to receive. But what a dreadful, dreary contrast! I opened my eyes to a heat-reeking plain. . . . I tried to talk, but could not. I tried to think, but I had only one idea —water!—water!—water!"

THE FOOD OF HEALTH.

The success of our efforts to supply the public with a form of food at once delicious, healthful, and economical is very gratifying. With very little advertising there has been a regularly growing demand. The same persons come or send for it again and again. Every Saturday the same people, artizans, and working men, come for a weekly supply for their children. They tell of the good it has done. The little one was pale and pining, and has become rosy and robust. "I tried this and that," says one, "but nothing did me any good till I got the 'Food of Health.'" "I have been taking medicines for years," says another, "but now I eat a meal of wheaten groats every day, and need no more doctor's stuff." All this is very gratifying.

There is no doubt that these two preparations, the "Food of Health" and the "Wheaten Groats," are the best forms of farinaceous diet ever prepared. No other has so fine a flavour, so easy a digestion, or so good an effect upon the whole system. They afford a curious example of the way food substances are changed in flavour and quality by modes of preparation. It is a matter of dynamics. It would seem that the force employed becomes latent in the food, and again active in the organism. However this may be, any one who tries these forms of food will find in them a new flavour and new qualities of force and life. It is difficult to say which is best. Where there is any torpidity in the large intestines—any considerable degree of constipation, the wheaten groats are to be preferred. They cure the most obstinate cases. Generally the "Food of Health" is to be preferred, and for all delicate and growing children, and invalids of every age, it is beyond doubt the best food ever prepared. With the addition of fruit it constitutes a perfect diet.

RESULTS OF A VEGETARIAN DIET.

"M. A., Oxon," who describes himself as a man of 55, hard brain-worker, inclined to obesity, gout, liver disease, &c., gives the following results of the disuse of flesh in the January *Dietetic Reformer*:—

1. *As to corpulency.*—My weight has decidedly decreased, and my circumference is considerably less.

2. *As to gout, liver, and kidneys.*—As far as can be judged I am almost, if not entirely, free from my old foes. I do sometimes feel the very slightest indications that the enemy still keeps a small force on foot to invade me, or at least to watch me, but that is the *utmost* that can be said

3. *My general health* is such that I have never taken the smallest quantity of any drug, not even a single pill, or as much as one effervescing draught, since I became a vegetarian. I was a regular taker of pills before. All the functions of the body are performed in their natural course without any extraneous or artificial aid.

4. *As to general bodily feeling.*—I feel light, comfortable, and at ease to a degree which I never remember to have previously experienced.

5. *As to bodily activity.*—I am able to walk with ease and comfort. I do not regard four or five, or six miles over the steep peak hills of Derbyshire with any alarm.

6. *As to mental activity.*—My mental powers are brighter, readier, and greater by many degrees. I can do much more mental work, do it better, and do it quicker.

7. *As to the moral powers.*—Morally, I am clearer, happier, and more anxious to serve my fellow-creatures than before.

I look upon abstinence from alcoholic drinks and from flesh-meat as the two great temporal blessings which I enjoy, and the adhering to this twofold abstinence as the greatest privilege which God has conferred upon me. When I think of what five years of vegetarian living has done for me, I can only say, "*He that hath ears to hear let him hear.*"

LAWS OF HEALTH AND DISEASE.

We have only to live according to the simple principles of nature, as we see birds and animals living in their wild and natural state, and we should never be ill more than they are. When we shut up animals, deprive them of air, water, and their proper food, they get ill, the same as we *do*; and we have veterinary surgeons, cow doctors, etc., to cure them. It is the same with us. Men living in a state of nature are strong and robust, and have few diseases; but with civilised modes of living, our pains and dangers are multiplied. We cook and season our food, so that we are tempted to gluttony; we eat the flesh and fat of animals that we have made diseased by our system of fattening; we feed on pork that is full of scrofula, for the very word scrofula signifies the disease of a hog; we are in the daily use of poisonous narcotics, as tea, coffee, tobacco, and spirituous liquors; and with all this, we exhaust our systems by the debauchery excited by these stimulants of the passions. The law of nature is the law of health. It is, that we should eat regularly and sufficiently, of a pure and nutritious diet—that we should breathe a pure air, by having our dwellings, and especially our sleeping-rooms, well ventilated—that we should keep open the pores of the skin by cleanliness, which cannot be preserved but by washing the whole body as often as once a-day; by having different underclothes at night from what we wear in the day, and by changing both as often as they are in the slightest degree affected by the foul matter of the system continually discharged from the skin. Any person born with a decent constitution, by observing these principles and living up to them, may be sure, accidents and the evil influence of others excepted, of living in health and happiness to a good old age.

THE PRESERVATION OF FOOD.

By Dr. Nichols.

Those who have read the paper on the "Food Supply of England" in the October number of the *Herald of Health* will gladly return to the consideration of a matter so important. The supply of food depends in a large degree upon our power to preserve it. We harvest our crops at one season—we must keep them the year round. To guard against years of scarcity and famine we ought to be able to keep an ample supply of the most important food staples for three years. Happily this can be done with wheat, rye, barley, oats, maize, rice. The seeds of plants will keep sound for ages. And there are methods, as we have intimated in the article referred to above, by which the more and the most perishable articles of food can be preserved in all their perfection.

This morning, October 6, 1875, we took from a box an egg which had been packed with others in May 1873, and boiled it for our breakfast. It was perfectly sound, sweet, fresh, and good. It has been three months in our possession, lying on the mantel, examined and shaken by visitors, and subject to a summer temperature. And the portion of the egg we have left in the shell to show to some who were doubtful as to its condition is better than nine out of ten eggs one could find in a London coffee-house; yet it has been preserved more than two years.

We next took from our closet a box sealed up in paper bearing the following inscription:—

"The contents of this box were bought August 5th, 1875.

"This box and contents were placed under my seal by me, August 23, 1875,

"Arliss Andrews

"And witnessed by me,

"George Winter."

Several such boxes, each one containing five eggs, were sealed up at the same time. I opened one of them, and boiled an egg taken from it which was purchased on the 5th of last August, the worst period of the whole year, when hens and eggs are in the worst condition. This egg kept two months at a temperature of 60° to 65°, was sweet as a nut, with no sign, smell, or taste of deterioration. It was an ordinary French egg, bought two months ago of a London dealer and subjected to the preserving process, and I have no doubt that it would have been as fresh and sweet at the end of a year as it was when I ate it this morning.

This process of preserving and packing eggs will be patented, and can be applied rapidly and at a trifling cost to the largest quantities. Ships can be supplied with fresh eggs for the longest voyages. They can be packed up by millions in the spring when they are plentiful and cheap, and sold at Christmas tide when, as every housewife knows, they are scarce and dear. The profit on this operation is unavoidable. It is a commercial necessity. Year by year the prices rise and fall as regularly as the tides, and we cannot with any moderate amount of capital affect one more than the other. What we can do is to buy great quantities where they are most plentiful, as in Poland or China in the spring time, and sell them all over England in the autumn and winter when they are scarce and dear. If we double the money invested we at the same time render a real service to those of whom we buy and to whom we sell. Mr. Ruskin, while denouncing the ordinary doctrines of political economy, does not see his way to the abandonment of the 12 per cent. he draws from his Bank of England shares; and we do not see how we can avoid a net profit of 20 to 30 per cent. in the preservation of food. We only think we know of some good we can do with our share of the proceeds of such a beneficent investment.

The preservation of fresh fruits will be more costly as to original outlay than that of eggs, but may be even more profitable. For the last two months we have seen English markets glutted with fruit. Over the great fruit-growing districts of the Midland Counties the finest plums have sold for less than a penny a pound, simply because there was no mode of storing the surplus for future use. Thousands of costermongers have loaded their carts with perishing fruit. Almost every year thousands of baskets of the most delicious peaches are given away in the American towns; and immense quantities that cannot be given are destroyed—emptied into rivers or the sea. Droves of hogs are fed on peaches. Yet it is a perfectly simple matter to keep all these fruits in their fresh condition from harvest to harvest, and a perfectly easy matter also to dry and pack every kind of fruit so that it can be kept for years, and transported everywhere, not only with no loss of flavour, but in many cases with an appreciable improvement.

To preserve all kinds of fruit—apples, pears, plums, peaches, grapes, melons, &c., &c., in a perfectly fresh condition—we need only storage-rooms kept at a temperature of 35° Fahr. To keep the largest store-house at this temperature requires only two things—first, that it be constructed so as to secure perfect, or almost perfect isolation, or non-conduction of heat—like a first-class ice-house, for example; and second, that means be taken to accurately regulate its temperature from week to week, or day to day, as required. As any amount of heat can be set free by condensing a gas to a liquid, or a liquid to a solid; so any amount of heat can be made latent, or any degree of cold produced, by making solids liquid, or liquids aeriform. For example, we heat our rooms and cook our food by converting two gases—oxygen and hydrogen—into water. And reversing the process, we can make ice by converting water or ether into vapour, or by allowing ice and salt to become liquid. If ice can be made by steam power at a cost of 8s. 6d. a ton, a store-room as big as St. Paul's can be kept at 35° Fahr., or 1° C., at a very moderate expenditure. And there is a method by which one portion of the same building can be kept at a tropical heat, and another as cold as Nova Zembla, by one single and very simple mechanical operation—by which, for example, a range of hot-houses could be warmed, and at the same

time, and by the same operation, an adjacent store-room kept cold enough to perfectly preserve its gathered fruits and flowers. This is not a matter of speculation, but a fact of chemistry or dynamics, as demonstrable as that the three angles of a triangle are equal to two right angles.

Of course, a store-room which would preserve fruit would also perfectly preserve butter, meat, fish, and every kind of perishable article. In one notable instance meat has been kept fresh for many thousands of years. At a certain degree of cold no ferment can act — no germ develop. The forces of life and of death are inert. Nothing is frozen, but life is suspended and decay impossible. In carrying out our operations for supplying fresh fruit at all seasons of the year, we shall need great store-houses kept at a low temperature, and we shall also require them for the temporary storage of eggs that are to be preserved, and fruit waiting to be dried. In the flush of the season whole cargoes of eggs, or of fruit, can be bought at very low prices. We must have the means of safely keeping them until they can be secured beyond the reach of decay.

No one knows the waste of this decay. Millions of tons of vegetables, fruits (domestic and imported), meat, and fish are lost for lack of means and skill to preserve them. Let us begin to save. We shall be well paid for our trouble, and the time will come when all shall reap the benefit.

Railways have done much to equalise prices. We can remember when fruit and vegetables, provisions of all kinds, were wonderfully cheap in distant outlying regions, such as the Channel Islands or Anglesea, for example. Now, with steamboats and railways, things are almost as dear in Jersey or at the Land's End as in London.

But look at this. There are regions, within fifteen days' steaming from London, where beef can be bought in any quantity for threepence a pound. We will engage to fit up a steamer, so that she will land a thousand tons of this beef at the London docks in as good condition as it was the day it was put on board. It is simply to construct a floating storehouse, which may be as large as the "Great Eastern," if you like, and which can be kept at the required temperature for perfect preservation of flesh or fruit by a donkey-engine, worked by the same boilers that propel the vessel. By going a little farther, all the thousands of tons of beef utterly wasted by being converted into so-called Liebig Extracts, which the best chemists in Europe have shown not to contain an atom of nutriment, but only a flavour, every nutritive element being left out — might be brought to England to feed her reputed beef-eating population.

All this is perfectly easy to do, and it could no doubt be done with great profit; but we are more anxious to save and distribute the purer, higher, and more healthy forms of food, and enable every family in England to have good fruit every day in the year. We can see no way in which we can so well promote the health and happiness of the great mass of the people.

Fresh fruit the year round may for a long time be a luxury of the comparatively rich; but dried fruits, equally good for most uses, equally healthful, and far cheaper, can very soon be made a portion of the daily food of the poorest. There is no reason why every one may not have apple sauce, apple dumplings, apple tarts, stewed pears, stewed peaches, plums, &c., for every day in the year. Sweet Indian corn, sweet potatoes, tomatoes, are among the cheapest foods in the world. Food dried by the rapid steam process is actually richer than fresh fruits, by the amount of grape sugar developed in the super-ripening. But in this process it loses about four-fifths of its weight, and more than half its bulk—cheapening by so much the cost of transportation, while it can be kept uninjured for years. Not only can all the surplus fruit of England be saved by this means, but we can draw on the great fruit-growing American States, on California, and even on Australia, for our supplies of delicious and healthful fruits.

DIET AND DIGESTION.

The following rules for diet and digestion are from Dr Beaumont's well-known Observations and Experiments, perseveringly made upon a healthy young man, whose stomach was exposed by a wound which healed, leaving an external opening. The rules are valuable for all, whether sick or well:—

1. Bulk is nearly as necessary to the articles of diet as the nutrient principle. They should be so managed that one will be in proportion to the other. Too highly nutritive diet is probably as fatal to life and health as that which is insufficient in nourishment.

2. The more plain and simple the preparation of food, and the less of seasonings of any kind, the better for health.

3. Thorough mastication and slow swallowing are of great importance.

4. A due *quantity* of food is of the utmost importance. "There is no subject of dietetic economy," says Dr. B., "about which people are so much in error as that which relates to quantity. Dyspepsia is oftener the effect of over-eating and over-drinking than any other cause."

5. Solid food, if properly masticated, is more easy of digestion than soups and broths.

6. Butter, fat meat, and all oily substances, being always hard of digestion, tending to derangement of the stomach, are better omitted.

7. Simple pure water is the only fluid necessary for drink, or for the wants of the system. The artificial drinks are all more or less injurious.

8. Violent exercise very soon after a full meal is injurious, but gentle exercise promotes digestion. Sleep soon after a meal is better avoided.

9. Strong mental exercise and emotions of the mind, as grief, anger, fear, etc., particularly with a full stomach, tend to impair digestion.

Diet of Children. — Dr. Ferguson found that children fed on a tea and coffee diet grew only four pounds per annum, betwixt the ages of thirteen and sixteen; while those who got milk night and morning grew fifteen pounds each year. This needs no commentary. The deteriorated physique of tea-and-coffee children, as seen in their lessened power to resist disease, is notorious amidst the medical men of factory districts.—*The Sanitary Record.*

MAXIMS ON DIET.

By Dr. Hall.

Dyspepsia can be uniformly cured and always avoided by the following rules:—

1. Eat thrice a day.
2. Not an atom between meals.
3. Nothing after a noon-day dinner, but some cold bread and butter and one cup of hot drink.
4. Spend at least half an hour at each meal.
5. Cut up all the food into pea-sized pieces.
6. Never eat so much as to cause the slightest uncomfortable sensation afterwards.
7. Never work or study hard within half an hour of eating.

Acidity of the stomach always arises either from having eaten too much food, or a quality which the stomach could not dissolve; the remedy is, eat less and less at each meal until there is no acidity, then you know for yourself how much your stomach can manage; to eat the same amount and as regularly take something to correct the acidity, is certain to cause dyspepsia or some other more serious form of disease.

For dyspeptics and the constipated, as well as a large class of other invalids, about a pound of grapes eaten nearly an hour before each meal has an admirably healthful effect, especially in conjunction with exposure to the out-door sunshine for the hour including their eating.

A very large proportion of all the crying and pain and suffering of infants would be infallibly prevented if fed at not less than two hours' interval for the first two weeks, three hours up to three months, for four hours up to one year, and five hours thereafter, with nothing whatever between meals but drink, from daylight to bed-time, feed thrice during the night the first month, twice the second, once thereafter until weaning, and then discontinue night-feeding altogether, that is from bed-time till sunrise.

The appetite is either natural or artificial. The natural is always safe; the artificial is always dangerous. Bread and water are examples of the former; liquor and tobacco of the latter. The natural has five characteristics: 1st. About the same amount of bread and butter satisfies us every day for years. 2nd. We do not want bread and butter oftener now than years ago. 3rd. Any specified amount satisfies for as long a time to-day as it did at any previous time. 4th. A pound of bread will give as much satisfaction in childhood as at fourscore. 5th. We take bread three times a day and never get tired of it, and its use is not followed by any unpleasant symptom. Tobacco and stimulating drinks are the reverse in all points, the appetite for them being artificial.

Dyspepsia is nearly always the result of too short an interval between the times of eating; with a five hours' interval the disease would become a rarity in the next generation.

Persons often cough half a night, or lay awake for hours in consequence of having eaten something which did not agree with the stomach—generally some unusual thing,—or from having eaten a late or hearty supper, or having eaten moderately, but while greatly fatigued.

[For this stomach cough a glass of cold water is a speedy cure.—*Ed. H. of H.*]

GOOD WAY TO COOK APPLES.

You want every apple to remain perfect, retaining its shape, and not to be an undistinguishable mass of pulp, core, and peel, baked next to dryness, or insufficiently cooked at the centre of the fruit. To bake an apple properly is a nice thing, requiring attention. The first thing is uniformity of heat, not too much nor too little. You must learn by experience the amount of heat needed. The time depends somewhat on the thickness of the peel, and the amount of moisture held by it. It is this holding the moisture while baking, that is the secret of successfully baking an apple. It is confining the steam which gets up a commotion and reduces the pulp to a fine texture. thorough reduction, leaving the skin a thin silken covering. holding the flavour and aroma. This is an advantage to a highly flavoured fruit, but it also improves an apple of inferior quality, lessening the acid.

To secure all this, an apple should be exposed to gentle heat from three to five hours, according to size, and whether sweet or sour; a sweet apple requiring more time. As soon as removed from the oven lay open the fruit, remove the core, sprinkle fine white sugar over it, close up and set away till cool. The point to be observed in baking, is to see that the skin is not broken by the heat as it generates the steam.

Dr. Hall.

SCIENCE OF A CHEAP & HEALTHY DIET.

By T. L. Nichols, M.D., &c.

Although this little work is also called and advertised as "How to Live on Sixpence a-Day," we prefer the above, as conveying a more correct idea of the work. It is a compendium of popular physiology, dietetic science, and domestic economy; and supplies, for the small charge of sixpence, a little work on a subject, in regard to which the millions are in woful need of information and guidance. The injury to health, and the pecuniary loss which might be remedied by the carrying out of the principles laid down, are incalculable. The general lesson conveyed is that we go to great expense in eating and drinking, with the effect of injuring our healths and impairing the vigour and purity of our minds, when, on a comparatively small amount—sixpence a-day—a man can live elegantly and tastefully, and in the best of health, mentally and bodily. We recommend the book to every one, rich and poor—to the poor that they may live well on their limited means, and to the rich that they may enjoy better health, and have wherewith to help others.—*The Highlander.*

FLESH FOR FOOD.

A MILLION hundredweights of dead meat are annually imported into the United Kingdom, and millions of living animals. Flesh meat comes to England from all the neighbouring countries, even those which have much denser populations. Belgium, the most populous country in Europe, sends animal food to England. The hardy Scotchmen live on oatmeal and load railway trains with beef and mutton for the English markets. Cattle come from New York to Liverpool, and dead meat is now brought quite fresh from New York to London, and sold in Smithfield market. Canned meats are imported from Australia; while the flavouring matter of beef, with all the nutriment carefully left out, comes from the slaughter of great herds of wild cattle in South America.

All this is not enough, and we have leading articles in newspapers, and public meetings in Exeter Hall, crying out for more meat—more corpses of dead animals for our "riotous eaters of flesh."

The stuff written on this subject in some English newspapers is simply amazing. Here, for example, is an extract from a leader in that usually clever journal, *The Hour*:—"To keep up the standard of health and vigour necessary for our avocations, meat is an essential element of diet, and in this country beef has become the mainstay of national existence. . . . The consumption of diseased meat forms a large proportion of the food administered to the public, . . . causing a gradual diminution of the vital forces. . . . We must have our beef and our beer. . . . Let us have an abundance of good fresh beef at living prices, and the thirst for stimulating beverages will be diminished. The English labourer cannot live without cheap meat."

Bah! How has the English labourer managed to live for centuries? How have agricultural labourers lived on nine shillings a-week, they and their families, for all expenses? How have Scotchmen and Irishmen lived on much lower wages? What do Frenchmen, Spaniards, Italians live on? We have said in "How to Cook"—"Three-fourths of the human race eat little or no flesh meat. Even in Great Britain half the people seldom taste it except on Sundays. Millions in various parts of the world refrain from eating flesh from religious or sentimental scruples, or from a conviction that it is needless, or prejudicial to health. It is quite certain that it is not necessary to sustain the highest health, the greatest physical and intellectual vigour, or the greatest longevity." The English no more need the flesh of beasts than other peoples who work as hard, and are quite as strong and healthy.

Mr. Buckmaster, who gives lectures on cookery, ought to be an authority on this matter; and Mr. Buckmaster, in some of his recent lectures, has combated the idea, to which Englishmen are so obstinately wedded, that meat is an essential article of diet. "I by no means say," observes this great authority, "that men should not eat meat if they can afford it, but our former abundance has given it an importance which it does not deserve. We are neither better fed nor stronger because our average consumption of meat is, even at its present price, greater than that of any other European nation. The chief food of the Roman gladiator was barley cakes and oil, and this diet, Hippocrates says, is eminently fitted to give muscular strength and endurance. The Roman soldier, too, seems to have had little or no meat. His daily rations were one pound of barley, three ounces of oil, and a pint of thin wine." The journal from which we clip this extract says:—"It would be too much to expect ladies to deserve the Victoria Cross for distinguished bravery in the presence of the cook by ordering barley cakes and oil for the servants' hall, but they might with advantage take the hint themselves. But little chloral or sherry would probably be needed if some one would bring oatmeal porridge into fashion."

Sylvester Graham, whom we once heard giving a course of lectures on Physiology and Diet before the faculty and students of one of the best medical colleges in America, said:—"Flesh-meat is more stimulating and heating than proper vegetable food, and quickens the pulse, increases the heat of the skin, accelerates all the vital functions, hastens all the vital processes of assimilation and organisation, and renders them less complete and perfect; and consequently develops the body more rapidly and less symmetrically, exhausts the vital properties of the organs faster, and wears out life sooner. Flesh-meat causes a much greater concentration of nervous energy in the several organs through which it passes in all the successive processes of assimilation, than proper vegetable food, and consequently leaves those organs more exhausted from the performance of their functions, and causes a greater abatement of the sensorial power of the nerves of animal life." "Flesh-meat developes and strengthens the animal propensities and passions, and especially those of a more exclusively selfish character, rendering man more strongly inclined to be fretful and contentious and quarrelsome and licentious and cruel and destructive, and otherwise vicious and violent and ferocious."

Have we not seen something of this in the manufacturing districts of England, where a general rise of wages, and consequent larger consumption of the *Hour's* necessaries of life—beef and beer, was coincident with a terrible increase of violence and crime?

Professor Newman, in a series of papers in the *North of England Review*, treats of the bad economy of a flesh diet, and its effects on population. He says:—"Those who have not closely looked into the matter, seldom know the important fact that in this quarter of a century the consumption of mutton, beef, pork, and rabbits has not only drawn off the resources of our artisans, but has actually diminished the quantity of food raised in the United Kingdom, and made us more dependent on foreign supply. To understand how this is, two possible modes of feeding cattle must be considered. When you desire more sheep or oxen you may lay down

arable land into grass; *that is one way*. It may chance to pay best to a farmer, and yet is wasteful to the nation. For the quantity of human food hence resulting is but a fraction of what would be produced by crops of grain or pulse, or other valuable food consumed by man. With diligent cultivation produce may increase so much that it is hard to make a definite statement; but it is not extravagant to say that every acre well-cultivated would feed *seven* times as many men by its crops as could be fed on the flesh of cattle who do but graze on spontaneous grasses. But the farmer saves immensely in wages and in manure by not cultivating; and if the price of butcher's meat is high, the sale of cattle may well clear his rent; while the nation has an immense loss of food, and the rustic population, being less needed for cultivation, is driven into the towns to compete with the townsmen and beat down wages. The case is not so bad when the land is not laid down in grass, but is cultivated for cattle-food, whether turnips or mangel-wurzel, beans or cabbages. In this way it feeds more cattle and employs more labourers; yet, still there is a large waste. The food which the cattle eat displaces the human food which the same fields might have grown. The direct crops consumed by man, would feed a much larger population than can live on the carcases of the cattle: probably, at least *three* times as many. To aid in deciding this question, a careful estimate was made in the town of Cincinnati, Ohio, where is a vast pig-butchery. The quantity of oatmeal used in fattening the pigs was noted down, as also the quantity of pig-meat produced. It appeared that the oatmeal would have gone nearly *four* times as far as the pork in feeding mankind."

APPLES AS FOOD.

THE *New York Times*, a leading American journal, has a capital article on the use of apples as a healthy and nourishing food, from which we make the following extract:—"It may be safely said that, except the various kinds of grain, there is no product of the earth in this country which is so good for food as the apple. This noble fruit is no mere palate-pleaser; it is very nutritious. It affords fully as much nourishment as the potato, which is regarded as a staple article of food. What an outcry goes up if there is prospect of a failure in the potato crop; and yet very little is said of the chance of a dearth of apples, which shows a lack of a true appreciation of the fruit. Not only is it more nourishing than the potato, but it contains acids, mild and gentle, as well as pleasing to the taste, which act in a beneficent manner upon the whole animal economy. An apple-eater is very rarely either dyspeptic or bilious. The apple is also tonic in quality, and contains phosphorus in greater quantity than any other vegetable does. Therefore it is a most fitting and desirable article of diet for us Americans, who live in such a state of mental excitement, and are so indisposed to bodily exertion. It feeds the brain and stimulates the liver, which is just what we need.

"Nature, as if knowing that such would be our national temperament and such our hygienic needs, has given the apple in this country a development which it has attained nowhere else. There are no apples to be compared with American apples, either in size or in flavour. This fruit is one of the few things that we brought from England which have improved upon our soil. Its excellence is so great here and so peculiar that it may be almost called our national fruit. It is food, nourishing and stimulating both to mind and body. It is a domestic fruit; homely, very rich and beautiful and vigorous, like so many homely things, among them the homely graces and virtues. We could better spare all other fruits, except perhaps the strawberry in its season, than we could spare the apple. And yet the strawberry is merely ephemeral; the apple lasts the year round, to feed us and to cheer us by its peculiar corrective and stimulating qualities. The need which the apple supplies can be supplied by no other fruit—we may almost say by no other vegetable product."

SOME MORE GOOD WORDS.

WE must look carefully to the direction not to put our light under a bushel. The good and useful cannot be made known too widely. So we copy here some friendly words which may be a help to many readers. Thus—

A CLERGYMAN writes from Edinburgh:—"Many thanks for your *Herald of Health*—a most admirable means of circulating sound views on health, and much needed. I have lent it to many."

A GENTLEMAN writes from near Kidderminster:—"I am much pleased with your Almanacs. They are very good; every line full of some grand truth, brought clearly and forcibly home to us, and they are a worthy companion to your excellent paper, the *Herald of Health*. Please to send me another dozen of the *Almanac* and twenty copies of the *Herald of Health* for February."

A GENTLEMAN of Wolverhampton:—"A friend to whom I gave one of my packages of your Food of Health, says he has received an immense amount of benefit from its use already. It is truly delicious. Please send six more packages."

A GENTLEMAN of Manchester writes:—"I consider your Food of Health worth double the money you charge for it. I have eaten it twice a-day, and can truly say that it is delicious food, and whoever tries it will continue using it. I shall eat no more oatmeal, as your Food is much more palatable. I have furnished packets to three of my friends, who all speak highly of it."

We could give pages of such testimony, but *v. s. s.*

A SINGULAR death took place lately at Lincoln. A grocer named Picker, who keeps fowls, was last week feeding them, when a bantam cock spurred him in the left thumb. Mortification set in, and all efforts to save the unfortunate man's life proved unavailing.

CHEAP DINNERS FOR THE POOR.

The *Social Science Review* has received a communication from the Rev. A. D. Pringle, of Blakeney, from which the following is an extract:—

Desiring to further cheap cookery and good, I have asked Mr. Buckmaster to favour me with a few special hints which might be circulated, and thus aid the object with which his name is especially identified, and further the desire of our Government to promote sanitary knowledge and comfort positively within doors, as well as promote it negatively out of doors by most necessary anti-pollution.

Extract from a letter from J. C. Buckmaster, Esq., to the Rev. A. D. Pringle.

I have been written to from various parts to know how I would provide a dinner for one penny a day. At this price solid meat is out of the question; ox cheek and fresh bones when cheap can be provided. The food must be prepared from some of the following:—Ox cheek, pearl barley, haricot beans, onions, dripping, cabbages, oatmeal, pea flour, Indian corn, rice, fresh bones, macaroni and milk for change. It is only by the use of these items that you can provide a cheap wholesome dinner. I should say, taking one day with another, for twenty-four or twenty-five, on an average, one penny a day will provide a dinner from these ingredients. People must not think it a hardship not to have solid meat; three-fourths of the human race eat little or no flesh, and in this country large numbers never taste it except once a week. I enclose a few receipts, as a sample; I am much pressed with work, and cannot do more than send these.

Soups.—Three pints of split peas, or an equivalent of pea flour; two carrots; two onions; a sprig of celery; thyme, parsley, mint, pepper and salt; two ounces of dripping; nine quarts of water.

(1). Steep the peas in water five or six hours till soft; they should be put on over night. (2). Slice the vegetables. (3). Fry them for ten minutes in the dripping, and (4) add to the peas. (5). Add a pint of cold water. (6). Simmer from 9 till 12 o'clock. Cost, 1s. 3d. Quantity, about fifteen pints. Sufficient for twenty children.

Ox Cheek Soup.—Three pounds of ox cheek; two pounds of bones; one pint of pearl barley; ¼ pint of oatmeal; two onions; pepper and salt; eight quarts of water. About thirteen pints of rich soup. Cost, 2s. 3d. Sufficient for twenty children.

Our cookery book, written and compiled in humble emulation of what the great moralist and lexicographer, Dr. Johnson, intended to do, out of its five hundred receipts contains at least a hundred very cheap and healthful dishes. "How to Cook" costs 6d., in cloth 1s., and it may be had at every railway stall and of every bookseller. With the aid of this book any one can live luxuriously on sixpence a day, and very comfortably on half the money.

Some of Mr. Buckmaster's lectures are very appetising, and minister with tantalising effect to the universal craving for something nice. Occasionally, however, he takes a slightly ascetic turn, and, as Mr. Stiggins did in respect of liquor, maintains that certain articles of food are "wanity," never forgetting, we must own, to point out a few delicacies as having "less of wanity" about them than others, and being therefore edible at wi" of these abstemious moods Mr. Buckmaster has lately combated the idea, to which Englishmen are so obstinately wedded, that meat is an essential article of diet. "I by no means say," observes this great authority, "that men should not eat meat if they can afford it, but our former abundance has given it an importance which it does not deserve. We are neither better fed nor stronger, because our average consumption of meat is, even at its present price, greater than that of any other European nation. The chief food of the Roman gladiator was barley cakes and oil, and this diet, Hippocrates says, is eminently fitted to give muscular strength and endurance. The Roman soldier, too, seems to have had little or no meat. His daily rations were one pound of barley, three ounces of oil, and a pint of thin wine." It would be too much to expect ladies to deserve the Victoria Cross for distinguished bravery in the presence of the cook by ordering barley cakes and oil for the servants' hall, but they might with advantage take the hint themselves. But little chloral or sherry would probably be needed if some one would bring oatmeal porridge into fashion.—*Echo.*

Mrs. N. Kingsford writes to the *Dietetic Reformer*:—"When in Paris last summer I had some most delicious dinners off tomatoes, Indian corn, pumpkin, and artichoke. My cook has not the remotest idea how to dress these things; and she shares this ignorance with all English "plain cooks" employed in middle-class families. If no cookery-book of the kind really exists in English, I do not think I should do badly to employ some of my spare hours in Paris in translating and compiling one. It is pitiable, in all households, to see the waste of good vegetables. Even first-rate hotels have not means or knowledge sufficient to set a good vegetable meal on the table. One gets nothing but insipidly boiled potatoes, watery peas, and tasteless cabbage, and after a few mouthfuls one rises disgusted and unsatisfied." They must get "How to Cook," which has hundreds of vegeable dishes.

Is it Necessary to Drink?—A writer in the *League Journal* says:—"I have myself drank no liquid, not even water, for many months, and my health never was better. I have no craving for liquid of any kind. I mention this to show that the practice of drinking at meals, or between them, is a purely artificial practice, not based on the real wants of the body. I think, therefore, this subject of vegetarianism an eminently important one for all temperance men to consider. There cannot be a doubt that the drunkard's appetite is kept "keen" by the use of highly stimulating foods, and if dipsomania is to be successfully treated, everything of a heating or thirst-creating character ought to be laid aside." As fruit and boiled vegetables contain 80 to 90 per cent. of pure water, that quantity may well suffice, but if much salt is eaten more may be needed to wash it from the blood. Whenever the blood is thick or acrid, thirst calls for water to dilute it. And water, it is well to know, is really the only drink; what we mix with it is generally either food or poison.

Dr. Hall, editor of the *New York Health Journal*, goes in for dietetic medicine, treating billiousness with fruit, constipation with opening foods, epilepsy with melons, kidney disease with celery, &c. Pure food makes pure blood, and pure blood is health.

PORK AS FOOD.

SEVERAL reviewers of "How to Live on Sixpence a-Day" have not been well pleased with the opinion we have given of the unsalubrious, and even dangerous character of pork, bacon, ham, and sausages as articles of diet. Possibly, after reading the following, they may think better of our judgment, and not so well of piggy:—

TRICHANATOUS PORK.—To the pig we are indebted for two of the most repulsive and dangerous worms ever introduced into the human system—the *tænia solium*, or tapeworm, and *trichina*. It is to the latter that we particularly call attention, as the people of this country are frequently in the habit of partaking of cold foreign sausages and uncooked pork relishes, liable to contain this deadly parasite. The *trichina spiralis* seems to have been first observed by Tidemann in the year 1822, but was not described until 1835 by Owen. Between the latter date and 1859 this worm remained very much of a dissecting-room curiosity, and was not regarded as dangerous; but immediately afterwards the Prussian doctor Virchow had no less than six patients suffering from trichinatous disease in one year. Fear and interest were at once excited, especially as Zeuker, another Prussian medical man of repute showed that the migrations of trichinæ among human muscles, so far from being harmless, as had hitherto been believed, produced symptoms of the most agonizing kind, inducing death even in the strong and healthy within a few weeks after the sufferer had eaten contaminated pork. Dr. Philip Frank, on the staff of H.M. Army Medical Department, was the first to remit an account of this terrible disease from Germany. It appeared in the *Medical Times and Gazette* of May 26, 1860, of which the following is a condensed account:—The girl, whose sufferings are detailed, was a servant at a farmhouse where two pigs and an ox had been killed about Christmas of the previous year. She fell ill soon after having eaten some ham and sausages, and complained of extreme lassitude, depression, sleeplessness, loss of appetite, and other symptoms, which earned for the case the name of typhoid fever. Presently her whole muscular system suffered from excruciating pain, especially towards the extremities. Dropsical swelling of the limbs followed, the poor girl perishing miserably on or about the thirtieth day from the commencement of her illness. A *post mortem* examination revealed myriads of tirchinæ alive, in all stages of development, in every striated muscle, not even excepting the heart. Hearing of the occurrence, Professor Zeuker visited the farmhouse and obtained some of the same ham and sausages which the unfortunate girl had eaten, when he discovered that both were infested with the parasite in the encysted condition. He also learned that soon after the girl became ill, the housekeeper and all the other servants were prostrated, although they ultimately recovered after more or less suffering. The butcher who had officiated was confined to bed for three weeks, troubled with what was said to be rheumatic pains in the limbs, arising, no doubt, from trichinatos infection, the result of the well-known but reprehensible habit which prevails among German butchers of tasting in a raw condition all meat that they slaughter. But a more terrible scene was yet to be enacted. In October, 1863, at the little town of Helstadt in Prussia, on a festive occasion, 103 healthy persons dined together. Before a month had elapsed, 20 had died of trichinatous disease, 80 were in the excruciating agonies of the fearful malady, while the remainder, not yet attacked, lived in continual terror of the fatal worm. Case after case perished lingeringly and horribly, as, although most of the leading physicians of the country were consulted, none were able to cure or even assuage the pangs of the dying. At first it was suspected that the distemper was the result of intentional poisoning, but microscopical investigations of the remains of the feast revealed the cause of all the suffering and death. The damage had been done at the third course of the dinner, consisting of *Röstewurst*, or smoked sausage meat, which, on examination, turned out to have been made from an ill-conditioned pig, and swarmed with encapsuled worms. Attention was once more directed towards the perishing sufferers, small portions of their muscles were excised and subjected to the microscope, when the tissue was also found thronged with trichinæ in all stages of development.—*Food Journal.*

A GOOD SHEPHERD.—A country clergyman not far from London has been preaching health, as a part of holiness, to his flock. He tells them:—

"There are certain enemies of which we should all try to get rid: dirt, ignorance, and irreligion. Let us expel these foes from ourselves and from our neighbourhood. Dirt-heaps, and bad smells, in and out of doors, should be driven away; this will hinder much evil, and promote health.

"During the school age it is unwise to send children to earn money, or to let them be idle. By doing so, you starve your children's minds, and prevent them from improving their condition; you keep them poor for ever. Have them well taught for this world and the next, and their earnings in after-life will be very much more valuable. All honest labour is honourable; idleness is contemptible; and drinking, for drinking's sake, worse than brutish. Lay out your money carefully. The Post-office Savings Bank will assist those who wish to stand well and prosper, Whatever our station be, it is a beautiful thing to live our life well. The better you do your duty to your wife and children, to your father and mother, the more you are doing your duty to your country and your neighbour, and the more reason you have to look for a happy and united home."

This is very good preaching. And the result of such preaching as the above has been, we are told, that—

"There are fewer foul drains and bad smells; there are more gardens and better kept gardens, with finer produce. There are many more tidy houses, and more flowers, and flowers of increased beauty. There is more industry and greater profit, and less idleness and misery. There is more education and fewer growing up in ignorance; wages are less misspent and more money saved."

If clergymen would see more to people's bodies they might, perhaps, do better for their souls. And then to feed the hungry, cloth the naked, heal the sick, comfort the afflicted—are not these religious duties, as much as saying prayers and listening to sermons?

CURE FOR INEBRIATES.

SHALL drunkards be punished or cured? Are they best dealt with—for their own good and that of the community at large—when sent to gaol, or to an inebriate asylum? Is drunkenness a crime, or is it a disease? is the rational ground on which to meet it that of punishment or cure? To the elucidation of the problem which these questions outline, the letter on our second page, giving the observations of a correspondent whom we sent to investigate the workings of the Binghamptom Asylum, forms a not unimportant contribution.

The boy who first develops the insatiate craving for drink is regarded as a criminal at home, is liable to arrest and imprisonment, and is certain of dismissal from any religious body of which he may be a member. Now, what are the facts in his case? At asylums like this they have made it their study, as other physicians have done with consumption or deformities; have had in their own care thousands of such patients, and *cured them.* Their statements are so simple that a child can comprehend them. "I claim for inebriates," says Dr. Parrish, in his masterly analysis of the philosophy of intemperance, "that they should not be made exceptions to the ordinary rule, as it relates to the entire class of invalids. The common ills, such as rheumatism, gout, consumption, &c., are all traceable either to direct hereditary taint or to the accident of exposure, fatigue, &c. The same may be said of intemperance." By the hereditary taint, he does not mean that the mere taste for alcoholic liquors is transmitted from generation to generation, but that men are born inheriting certain temperaments which drive them to seek relief in these stimulants. They are born "suffering from the effects of an organisation which they did not create, and from infirmities which they did not knowingly promote." "They come," says Maudesley, "into the world, weighted with a destiny against which they have neither the will nor the power to contend; they are step-children of nature, and groan under the worst of tyrannies —the tyranny of a bad organisation." The other causes of exhaustion of nervous energy common among us, and which are increasing every year, he states justly to be the intensity of American social and business life—the forcing of children's brains, the incessant drain upon the supreme nervous centre in the rivalry and struggle for money and power. Whenever, therefore, from hereditary taint or this exhaustion of nervous energy, the patient seeks relief in alcohol, the disease assumes a definite form, the symptoms of which are given by Dr. Davis. Chief among these, and most liable to misconception by the ignorant, is the diseased condition of the gastric and ganglionic nerves, which constitutes the morbid craving for renewed stimulant that is railed against as a temptation of the devil. There would be quite as much reason in calling the chills in ague a work of Satan. Dr. Davis puts the case forcibly:—"If the inebriate, then, is the victim of a positive disease, induced by the action of an alluring and deceptive physical agent, alcohol, will any number of moral lessons addressed to his intellect, or any amount or denunciation hurled at his degradation and his vices, cure or reform him? Or will his arrest, arraignment in a police-court, and extortion of the few dollars he has left as a fine, eradicate the disease that is preying upon the most delicate part of his organisation?"

The remedy urged by both science and humanity is the establishment of asylums for the inebriate where he can be subjected to medical treatment, receive brotherly encouragement, be given employment suited to him, and secure a foothold in the outer world when fit to enter it again. Such asylums have been established by the State or private enterprise in New York, Massachusetts, Pennsylvania, Texas, Illinois, and California. It is not essential that these establishments should be large. The most sucessful, probably, are those in which the number of patients is so limited that each is brought into direct and constant contact with the superintendent, and receives individual care and sympathy Indeed, the massing of any class of patients together is always to be deprecated. No power forces its way so rapidly as a true idea. Slavery is blotted out, and intemperance, we believe, will be the next stronghold to disappear—not before fanatical outcry, but the force of reason and science. Before many years the drunkard, instead of being legally amenable to fines and imprisonment, will receive the rational treatment awarded to the insane, and be sent to an asylum.

For the statistics of the actual benefits conferred by these asylums, we refer our readers to Dr. Parrish's pamphlet, of which we published an abstract on the 27th ult. The average cured vary from 40 to 63 per cent., an average which will, of course, be largely increased when the subject is comprehended in its true relations by the patients and public.—*New York Tribune.*

COST OF FOOD.—Those who doubt that a man can live on sixpence a day may be interested in the following statement of a man who says he has lived on sixpence a week. We copy from *Public Opinion*:—

"Living in the country as I do, I am unable to obtain what are known as luxuries, even if my means could afford them; but I have the advantage of living near a mill, and from the miller I buy the refuse of his flour, for which I pay fourpence once a week. This is the staple of my food. I make of this my own bread, the salt, yeast, &c., costing next to nothing. I vary this meal with occasional apple-dumplings, being able to buy about a dozen apples (windfalls) for a penny; and, as a luxury which I allow myself on Sundays, I buy a pennyworth of lard now and then. This amounts to sixpence a week. I do not include my drink, as, being pure water, I have it for other purposes as well.

"I have lived on this diet for nearly twenty years, and am in excellent health, and esteem myself most fortunate that I am as badly off as I am, for I am beyond the reach of temptation. —Yours very respectfully, "ISAAC SMALES.

"Eurewick. near Wakefield."

BAD AIR.

By Mrs. Nichols.

That we are all members one of another, is perhaps more fully proved by the air we breathe, and by imponderable agents mingled with it, than by any other material substance. Water might as fully demonstrate this if it were a necessity as universal as air. In a locality where the water is poisoned, if we know of its impurity, we can live on fruits, bread, and baked vegetables, and not use water as drink. It may seem incredible to those who take salt, and other thirst-exciting condiments, that one can live without drink; but it is true that, with a bland diet of fruits, cereals, and farinaceæ without condiments, and without over exercise, one need not drink for weeks. Pure water is, nevertheless, a great luxury, though not always a necessity. Rapid, and especially continuous, exercise throws off fluids from the body, and to drink becomes an imperative necessity. It is well to know how to live without drinking when the water is likely to produce disease or death. I have known many Grahamites who abstained from drinking, and for weeks I have abstained without thirst; but it was in the season of melons and juicy fruits, and we none of us needed, or liked condiments on our melons or other fruits.

Shut the mouth to breathe is the best of good advice. Many years since, I read Mr. Catlin's essay on breathing, and his account of the care the North American Indian women took that their children should breathe with the mouth closed. Ever since I have slept with my hand pressed under my chin to keep my mouth closed, and some whom I have induced to do the same have gotten over the habit of snoring.

The human organism is admirably constructed to protect itself. When we breathe through the nose, poisonous miasma is, so to speak, strained out of the air, and often sneezing carries off a part, or all that is left in the nose, a sneeze being nature's means of ejecting something hurtful through the spasmodic action of the nerves. There is an impression among the commonest people that one should not keep the mouth open while about ordinary or extraordinary business. A person who does this in New England is called a *great gape* (pronounced *gaup*), and it is equivalent to being called a *Guy* here.

Persons whose lungs are slightly affected soon make the disease worse by breathing with the mouth open. In London the smoke enters the lungs, lodges in the bronchial tubes, and in the air cells, and what is raised is black or grey even for a considerable time after the patient goes into a pure atmosphere. Smoke is perhaps the least evil that mingles with London air, and there is no doubt that the carbon of smoke neutralises many diseasing matters. People in crowded localities have little idea what they breathe. Not only common garments, but the most elegant and costly, are made in rooms that are aptly called *ferer dens*. Poor girls, sick unto death, make their hard lives a little longer by working in bad air, and so used are they to the close rooms that they would not bear the air, and so weak that they could not bear it, unless very carefully introduced. Their breath and the exhalations of their bodies are very unhealthy. They infect their work, and many a beauty has died of her ball dress when there was no arsenic in its colours.

I once went in search of my linen in London when the laundress had failed to bring it home. What I found I could never describe. One child was well over the smallpox, though pitted for life. I will not speak of the room or the family, only to say the room was large, there were six large and small persons in it. The cords that held the clothes were so arranged that the garments were hung on them, and then they were raised to the ceiling over head.

It was a very ingenious contrivance, leaving the space free beneath for two beds, and other articles of furniture, besides the tubs, ironing table, &c.

The mother, my laundress, was happy that only one child had had the smallpox; and nobody found it out, and so he was not taken to the hospital. She had thought he had only a bad cold and sore throat, and she said she could hardly believe her eyes when she saw it come to sores.

"But never mind" said she, "it is well over, and the scales are coming off, and Johnny helped his father to sell the strawberries yesterday, and there are such a many, and some of them as big as the baby's hand."

And now for my portion of this family trouble. *I had actually bought and eaten some of the strawberries.* It does no good to shut one's eyes to scenes like these. I had a wish to suppress my part, but I leave it, though it is not a pleasant recollection. The never-ceasing circulation of the air is at once our preservation and destruction. It is now an accepted hypothesis that quantities of malignant or miasmatic matters are mixed with the air, and are drifted outward from Asia to Europe, and from Europe to America, causing cholera. Where the coherence of plague particles is considerable, the matter rests upon and is mingled with the air, and a whole city or country may be overwhelmed with the poison-current. But we see that all do not take any epidemic disease. In the past times when the conditions of health were much worse than now, when strong drink was the only drink of the better classes, and their food mostly flesh meat and mustard, the plague took off sometimes the larger portion of the people in hamlets, and great numbers died in towns and cities. Now there are milder types of disease, and a more healthy resistance. Our atmosphere is mixed with foreign matters everywhere, and the evil exhalations of plague spots pass onward in the air, often to a considerable distance from the place where the

evil had its origin. Our senses are so demoralized that we do not detect bad air by the smell. A few exceptional persons know good from evil, and evil from good. We cannot individually purify the air of the town or city where we may dwell, but we can keep our own bodies, clothing, and dwellings sweet and clean, and when we are obliged to breathe a vitiated atmosphere, we can keep our mouths shut, and thus purify to a considerable extent the air we breathe.

I have been compelled to be in rooms, and over patients with malignant and contagious diseases, and I have twice had smallpox in the mild form known as varioloid. Water cure brings out by every pore the poison of disease, and it was not strange that I should take the contagion of smallpox, for I was going from one patient to another, and also the disease was in my house. On both occasions I was attending to practice the third day, having had sharp practice on myself at home the other two days. I have never taken any other epidemic disease from my patients, though I have had large practice in scarlatina, cholera, typhus, and ship fever, which is a malignant form of typhus, and, under water cure, exanthematous.

During twenty-five years I have gone freely among all kinds of sickness, taking the precaution to keep my mouth shut, and to bathe and change my clothes very often when most exposed. There is somewhat of sadness in the thought that do what we will individually we cannot escape disease, for we must always breathe to live. The emanations of sin and sickness are always mingled with the air, even where it is purest, and what it is in crowded churches and schools, and unventilated homes, and inhabited cellars and slums, we can remember and imagine. We can see, then, simply from a knowledge of the atmosphere that no one of us can be healthy till all are. Individually, we may bathe, and eat the purest food, the cereals and fruits, and the best milk and butter, cream and honey, and we may decline tape-worm and trichina in flesh food. We may air our rooms and keep our clothing clean, but as long as we cannot live unless we breathe, we must inhale the sickness of our fellow creatures. Only by making others healthy and happy can we be so ourselves. The unhappy become an easy prey to disease.

It is something to shut our mouths against bad food and drink—to be temperate in all things; to be cleanly and sweet, and sweet tempered. We lessen by so much the impurity and sickness of the world. The air is left less vitiated for our goodness, and we have more resistance to disease, but only as we give to others the knowledge of health laws—only as we labour to increase their ability to obey these laws—can we be safe and well ourselves.

We see from all this that "self love and social are the same;" there can be no division of human interests. Co-operation in families, who live in unity from a true headship, will redeem the earth and save man materially; and he can reach this material good only as he is enlightened and saved, intellectually and spiritually.

We see and hear of fragments of co-operation in many directions—co-operative stores, manufactories, companies, and last, we hear of co-operative house-keeping. Co-operative families under one headship have been for centuries in the church, and great works have been wrought by them. They have redeemed the waste lands, drained dreadful morasses, have made the wilderness blossom as the rose; they have been the depositories of learning and of art; they have made illuminated works that now are priceless. In the present day they are educating children, being fathers and mothers to the fatherless, and doing numberless works of charity.

These families have been, and now are, composed of celibates. This has no doubt been well for the past, but a better day has dawned, a day in which man shall be the protector of woman, when there shall be no contest about equality or superiority, when differences shall be seen as delightful variations. The fragile glass, or Sevres cups are not as strong as the metal pot, but they are none the less honourable for that.

A day has dawned in which a family of married partners can be formed, where the interest of one shall be the interest of all; a co-operative family of families, where love and light, purity and health, shall be a day-spring from on high to redeem and bless.

On this subject I have more to say. I did not expect to come to it when I began this paper, but I think it has been legitimately reached.

Theory and Practice.—Sitting among the auditory when Professor Huxley was lecturing at the Royal Institution, we were much impressed with the very defective state of ventilation of the lecture theatre, and were somewhat surprised to find that those who undertake to instruct the public in the matter of science and hygiene should be so careless of the health and comfort of their members and friends. We observed on the evening in question ladies led out fainting, and the stifling nature of the air under the gallery almost compelled us to retire. Nevertheless, when an attempt was made to open the ventilators, the downward current set Professor Huxley sneezing, and almost brought his lecture to an abrupt termination.—*Medical Press and Circular.*—[This is about as disgraceful a state of things as well could be. It is equivalent to a court of justice, in which the judges should amuse themselves by picking pockets.]

We must eat, as we must breathe, and we should eat good food, as we breathe good air. Not live to eat, indeed, but eat in such a manner as to live long and well, and so as to build up, nourish, and sustain the body, with all its organs of motion, sensation, thought, and feeling, so as to make it the best possible instrument for the soul. Taste, conscience, and our most intelligent judgment should be used in the selection of our food and beverages, for they influence our thoughts, and feelings, and actions.—*How to Cook.*

MURDER OF THE INNOCENTS.

If we can carry out our plans for one year, there shall be means of ready and thorough ventilation for every house and every room in Great Britain. In the meantime, here is a fact bearing upon the matter which every reader will do well to consider.

For twenty-five years before measures were taken to supply good air to the inmates of the Dublin Lying-in Asylum, the deaths of infants were 1 in 6. During twenty-five years after this ventilation the deaths were 1 in 104.

Pigs at the Cattle-Show.—We clipped the following from one of our Metropolitan journals, probably the *Echo*:—There is certainly a placid expression of contentment about the faces of many of the well-fed cattle, whether oxen or heifers; but the most artistic reporter must find it difficult to perceive a trace of "sweetness" in the aspect of the porkers exhibited in the piggery. Very few of them can stand on their feet, and their faces are almost smothered out of sight in layers of fat. It looks very like cruelty to animals to gorge the brutes in this manner; their existence is a burden to them; and their labouring sides of living pork show how difficult a process it is for them to draw their breath. A visit to the piggery, which is by no means the most savoury part of the Show, should suffice to make everybody Jews in the way of abstaining in the future from roast-pork and pork-pies. And yet, notwithstanding their extreme ugliness and repulsiveness, it is astonishing to see how tender the pig-breeders are to their fat charges. Besides feeding them with spoons like babies, they smooth their sides with a soft brush, and place coverings over them to prevent the delicate creatures from catching cold. It might be thought that their unctuous sides would be impenetrable to the piercing cold of the Arctic regions.

Purity is the condition of health. The pure body is a healthy body; and the first condition of cure in any state of disease is purification. The moment the body becomes enfeebled by overwork in bad conditions, overwork with stimulants, by sensuality, by any kind of self indulgence, the skin, with its millions of pores, refuses to cleanse the system, the lungs act but feebly, the kidneys drain off imperfectly the waste matter of brain and muscle, the bowels become costive, and the body fills and clogs with its impurities, causing disease and death. How long we might all live, if we could but get out of our dirt and that of our neighbours!—*How to Live on Sixpence a-Day.*

Diptheria.—An American physician recommends carbolic acid as a cure. He says:—A piece of cloth is wet with the acid, and being loosely thrust into a small lamp, chimney, or other similar tube, the air is drawn through this and the air-passages to the air-cells of the lungs, where an antiseptic influence seems to be exerted upon the blood. Many cases that had resisted other treatment yielded readily to this.

HEALTH HINTS FOR MARCH.

Don't be in a hurry to take off flannels and warm underclothes. Open the pores with exercise, but do not sit down in a draught without clothing enough to preserve from chill. Better cool off gradually. When one is perspiring, a cold bath is as healthful as it is delightful, constringing the skin and giving it tone and vigour; while the chilling of cold air may bring on congestions of the mucous membrane —a bad cold in short; snuffles, sore throats, bronchitis, potions, pills, squills, bills. Nine times in ten a bad cold is taken on a full stomach: seldom or never on an empty one. Reason why. When the whole force of the garrison is at work disposing of surplus food none is left to resist the external enemy. Congestion of the stomach robs the skin.

Walk out in the sunny hours. When the mist comes, seek shelter and the genial fireside.

Purify the blood in spring with vegetable juices. We long for greens, and the sharp acid of rhubarb, because they are good for us; so is spinach; and the dandelion leaves boiled tender and eaten with a little vinegar.—*Herald of Health Almanac.*

Premature Mortality.—The rich, and especially the gentry who live on fixed incomes, have a freedom from care which tends to increase longevity. A pension or annuity prolongs life, and removes its sorest burthens. The struggling tradesman, and the artizan half his time out of work, have cares and anxieties that kill. Care eats deep lines into the faces of the poor. The rich also have variety and recreation in their lives, society and amusement. The lives of the poor are dull and monotonous, and all their conditions and surroundings are depressing. What of liveliness is there in the lives of great multitudes around us? Clearly it is not the fault of these short-lived people that they are born in poverty, and grow up in ignorance. It is not their fault that they are nursed on gin, play in the gutter, and are, in their earliest years, saturated with all the evils around them. They have no power to help themselves. The slaves of the Carolinas were better provided for, and not more helpless. The wealth they create they do not enjoy. Those who have it, without ever doing one day's work in their lives, live in luxury for sixty years; those who create it crowd filthy lanes and courts, garrets and cellars, and live on an average fifteen or twenty years. The causes which produce the premature mortality of men and women, act with double force on children. Healthy and long-lived parents have vigorous offsprings; but the children of the poor and wretched inhabitants of our large towns inherit weakly constitutions; they are poisoned before their birth; their natural food is poisoned; the air they breathe is corrupted; they are deprived of maternal love and care; in many cases they are drugged into insensibility by those who consider them a burthen, and they die by thousands. When it is stated in official reports that the average age of all who died during certain periods of time, in Bethnal Green, was twenty-one years; in Leeds, twenty-one; in Manchester, twenty; in Bolton, nineteen; in Liverpool, seventeen years, it is meant that more than half of all that were born, died before they were five years old.—*Dr. Nichols' Human Physiology.*

Contagion is a difficult matter to deal with, when doctors are going about from patient to patient carrying the germs of fatal diseases. In a recent instance three persons died of one doctor.

THE LAW OF EXERCISE.

Look at the blacksmith's right arm—the boatman's chest—the dancer's legs. Use develops and strengthens muscles and nerves. The unused muscles become flabby and thin: the unused brain degenerates. Education and training mean strengthening by exercise, and increase of facility and force by habit.

But exercise carried too far, made too violent or too protracted, weakens and destroys. Fatigue is nature's warning of danger. Violent exercise may cause fatal lesions of brain, or spine, or heart. Protracted labour of brain or body is a waste of life. The invalid should take brief lively exercises, like the game of "bean bags," which quicken and deepen the breathing, and excite the action of the skin. Long, wearying walks do more harm than good. They use up the vital force needed to mend diseased organs.

For many persons passive exercise is better than active—horse exercise, for example, or even driving. And in many cases, nothing is better than some portions of the movement cure—closing the hands, and drumming with them rapidly over the chest and whole abdominal region. This gives at once active exercise to the muscles, and passive exercise to the viscera.

The Skating Rink in Paris bids fair to become immensely successful. Not only have the English and American residents begun to make it a pleasant place of rendezvous, but the French have also taken to it with avidity. They attack the difficulties of skating as gallantly as they would assault a well-defended fort. The utter want of *mauvaise honte* which distinguishes every French man and woman makes them callous to the ridiculous tumbles which disconcert English beginners. When a French girl falls in the most humiliating manner, she remains seated on the ground, laughing as though she enjoyed the joke; and when two young Frenchmen knock each other down, they first take off their hats and bow to each other, and then shake hands. At night, when the excellent band plays, and the handsome chandeliers light up the place, the scene is brilliant in the extreme. There is every probability of the sport becoming very popular, and I have no doubt that some enterprising milliners and tailors will invent special costumes or the rink.—*Daily Telegraph.*

Ellis Greenwood, a jobbing butcher, at Thornton, was sentenced to two months' imprisonment by the Bradford magistrates for digging up the carcases of pigs that had died from foot-and-mouth disease, and been buried, and selling them for human food.

Borax has many valuable uses in the household. A weak solution snuffed up through the nostrils will relieve catarrh; some cases of sore throat may be cured by using this as a gargle; but it is specially efficacious in allaying inflammation of the membranes lining the cavities of the nose when irritated by cold.

MARRIAGE.

"Are early marriages commendable?"—used to be a favourite question for debating societies. In England it is lawful for a girl to marry at twelve. In some countries she must wait until she is eighteen—in most cases the better age, though one is as mature at fifteen as another at twenty. The great purpose of marriage is healthy offspring. For this there should be full development and sound health on the part of both parents. In raising domestic animals we select our breeders, male and female, with exceeding care. We pay four thousand pounds for a bull and two thousand for a cow, and far higher prices for horses and mares of favourite breeds; but when it is a question of men and women we take no care whatever; yet no physiologist can doubt that in blood and breeding may be found the sources of the highest perfection of humanity, physical, intellectual, moral. Men are born genuises, or born idiots—and can any one doubt that we have born thieves and born murderers?

Men should marry at twenty-five to thirty-five, women from eighteen to twenty-eight. Both should be healthy, well trained, moral, enjoying that fulness of life which will give the best of all wealth to their offspring. But one might write volumes on a subject so prolific, and I must refer the reader to the pages of "Esoteric Anthropology" and "Human Physiology the Basis of Sanitary and Social Science."

"Behaviour: A Manual of Manners and Morals."—This book, which will be found advertised in our columns, has never had a fair chance. The "Human Physiology" is, no doubt, our best book—the broadest and most comprehensive; "Esoteric Anthropology" is the most useful, as to health, disease, and curative treatment; but in certain respects we have no book so well adapted to the needs of improving and progressive youth, male or female, as this elegant little work on "Behaviour." Its difficulty in finding those for whose needs it was written lies in its being confounded with, or mistaken for, the common run of manners books, books of etiquette, guides to good society, &c.—books which supply a certain demand, and are well enough in their way, but totally different from "Behaviour," which is a book of principles, and deals with the fundamental laws of human life and human society. It is a book of politics, political economy, social science, morals, and religion, as much as of manners. In time it will clear itself of misapprehension, and find its way to proper appreciation and usefulness.



AMERICAN HYGIENIC GAME OF BEAN-BAGS.

We have promised for some time to write a little explanation of this hygienic importation, which we are trying to naturalise in England, and have waited only until we could get an illustration which would make the matter less difficult and more attractive. Here it is, such as it is: not the best that could be, but it shows fairly enough two or three phases of this very pretty and most healthful exercise. The principal personages are engaged in an animated triangular form—throwing right and catching left: little miss is expanding her chest with a single bag; young master has become adept enough to manage three.

The game or exercise of bean bags was invented by a distinguished American physiologist and educator, Dr. Dio Lewis. He tried wands, clubs, dumb-bells, all sorts of gymnastic apparatus for his more or less invalid pupils and patients, and finally hit upon bean bags. They are light enough and heavy enough—say from one to four pounds. A common playing ball is too light: a cannon ball too heavy; and both require considerable dexterity to manage. The latter may do one an injury. The beauty of the bean bag is that it requires no training. Any one can play the first time trying. It is easy to throw, and delightfully easy to catch. It yields so readily to every impression that if one were awkward enough to let it come full in the face it would not hurt. Caught anywhere, even by a finger, and it cannot escape you.

The bags may be of any kind of strong cloth —cotton, linen, or wool. They are prettiest in bright coloured flannel—neatest in a somewhat oblong shape, 7 by 9 inches, or 10 by 12. They should be about three parts full of small beans, smooth and clean, or maize will do, but not so well; and sewed up at both ends. When the bags get dirty, you have only to rip a couple of inches, empty and wash them.

One can play bean bags alone, tossing them up first gently, then higher, until they go to surprising elevations. Toss first with both hands, then with right and left alternately, catching in the same way. Toss with the left hand and catch with the right, and *vice versa*. When you can manage one bag nicely, try two, tossing with both hands at once, and catching one with each, direct or reversed as they fall. Then try sending them up alternately, until, like the boy in our engraving, you can keep up three or more at a time.

The exercise is really admirable, especially for the chest and spine. It also strengthens all the muscles about the hips. A quarter of an hour at the single game of bean bags, three times a day, with the proper baths and frictions, and a pure diet, will cure almost every case of narrow or hollow chest, round shoulders, or any kind of spinal curvature. It makes one breathe; it gently forces chest expansion; heart and lungs get room for healthy action, and the hundreds of spinal muscles learn to do their proper work. I have seen the bean bags do wonders for neuralgia.

Two persons playing together make the game delightful. They can begin with one bag, tossing gently, then throwing high or low, with both hands, then with each alternately; then throw and catch with both, one bag with each hand, and in this way four bags can be well managed. The game goes fast, eyes grow bright, cheeks glow, abundance of pure air gets into the lungs, and there seems to be an interchange of subtle and invigorating magnetism. With three there is a very animated and animating triangular game, each catching from his neighbour at the right, and throwing to the left, with rapid exercise for both eyes and hands, using one, two, three, and so on up to six, until the air seems full of bean bags rapidly pursuing each other. Of course

the triangle can be enlarged to a square, pentagon, hexagon, &c., or the lines of fire may cross each other. Very animated games are invented by ingenious and enthusiastic players, and no sport is so full of hilarity and healthful exercise and excitement. Croquet is pretty, picturesque, and fascinating, but not much exercise. Rinking is too hard a strain upon the hips, and does too little for spine and chest. The legs commonly have exercise enough—often too much in long walks which waste the strength. Bean bags give general and harmonious exercise—light, lively, pleasant, and every way invigorating.

They can be played in-doors, or out of doors, and are equally adapted to nursery, drawing-room, or lawn—the latter, of course, always to be preferred in fine weather. There is no need of any special ground, or costly apparatus. We can play bean bags any where. Every boarding school should have a good supply of them. They are a world better than back boards and mechanical chest expanders. We warmly recommend them to all who want a pleasant pastime and delightful exercise for both sexes and all ages. We specially recommend this amusing play as an excercise for girls; as a means of prevention, as well as cure, for narrow chests, distorted spines, pale complexions, and nervous disorders.

The bean bags are sent empty by post; filled by rail. See Price List.

Fruit Supply—An American lady writes to us from New England:—"There is much delicious fruit here that ought to be saved for England. Let me help with the fruit when your Company is formed. I know fruit regions in plenty, and how much work might be given to so many women thankful to do it! I'm sure I know a dozen clever, practical, thoroughly conscientious women who might be trusted with almost any amount or kind of the necessary work, and this would be women's work, and if your scheme prospers you *must* give women a chance. What a list could be made out! All the dried fruits—peach leather, that needs to be guarded by a policeman; all the canned fruits and berries—and *how* delicious these are as put up for home use, you can tell but faintly from any canned fruits that get to market; and jellies from A to Z—flavorous, clear, lucent—another race from the overboiled, oversweet concoctions in England that chiefly set one's interior on fire—and aren't worth the pain. You ought to tell your *clientèle* to use fruit with their crushed wheat and oatmeal. Even I, who could live on crushed wheat with plenty of milk and cream, should flag decidedly in my enthusiasm if I couldn't have a saucer of fruit along with each meal—berries, cut peaches, stewed pears, or baked apples. The fruit accompaniment would help to fix it permanently—the wheat, mean—in the affections of most people."

A healthy stomach and simple taste should never be burned up and destroyed by any kind of fiery, feverish, and exciting stimulants; and all condiments and flavours should, even as a matter of taste, be used in the most moderate quantities.—*How to Cook*

The Secret of Success.—The young man who will distance his competitors is he who masters his business, who preserves his integrity, who lives cleanly and purely, who devotes his leisure to the acquisition of knowledge, who gains friends by deserving them.

In nine cases out of ten, what are supposed to be affections of brain and heart have their real seat in a disordered stomach. Abernethy went to this centre to cure a sore finger or toe, and rightly; for there can be no reparation of any organ unless there be good blood; good blood depends upon good nutrition, and good nutrition depends upon good digestion, which in its turn, depends upon air, light, cleanliness, exercise, recreation, and good food, taken at proper times and in proper quantities. —*How to Cook.*

Effects of Tight Lacing.—The chest is naturally broad at the base, becoming narrower at the top—a cone-shaped structure. Women make it narrow where it should be broad, and broader at the apex, where it was originally narrow. The lowest air-cells of the lobes cannot expand when air is inhaled, while those in the upper region of the lungs are preternaturally put upon the stretch, in order to provide surface for the aeration of blood. One end of each lung is compelled to do more toward maintaining life than it was organised to do, while the lower part is prevented from giving much more than a feeble degree of assistance. Favoured, as many robust women are, with a fine organisation in other respects, they can live out a long life in comparative health and comfort; but they are few, when compared to the vast number who fall short and die before they have attained all they might have had on earth.—*Hall's Journal of Health.*

Human Physiology.—This book is an admirable compendium of information on a subject with which all persons ought to be acquainted. What subject can be more interesting, or which more concerns us to know than our own bodily frame? This is indeed the house which we inhabit, and which we are all concerned to make, by our proper use of it, a clean, wholesome, and healthy habitation. But to do this we must understand something of its laws and requirements. And all this we find conveyed in the clearest, most eloquent, and animated style in the volume before us. The author is an eminent physician at Great Malvern. His circle of patients is indeed a wide one, for all who read his books are his clients, and we may add give him their entire confidence, such is the evident and absolute command of his subject which his several works evince, and none more than the treatise before us. It is especially admirable in all that relates to the sexual relations. This topic requires delicate and conscientious handling. It must be done in a modest, reverent, and religious spirit, or it had better not be attempted. Such is the spirit in which Dr. Nichols writes, and his book is one which all wise parents would wish their children to be acquainted with at a proper age, and for the want of which knowledge many improper marriages are formed, and thus not only the happiness of individuals is often wrecked, but society at large deeply suffers. There are seventy excellent illustrations.—*Hampshire Advertiser.*

WOMAN AND VIVISECTION.

[There comes to us, without note or name, on a large handsomely printed sheet, bearing a Brighton imprint, the following paper, which we think may interest our readers. When they get to the end we have a word to say about it]:—

The question has been asked, in reference to Vivisection,—"*Can it be right?*"

It is passing strange that such a challenge should be made in this nineteenth century, when education has so prominent a place, and right and wrong, at least in their elementary principles, are so clearly defined.

An unexpected antagonism has, however, started up between noble natures—those who have decided that Vivisection is wrong—and others, differently constituted, governed by a thirst for scientific enquiry, and a visionary hope of gain to their own race—(through torture wrung),—who consider that Vivisection is right.

Every exhaustive argument must consequently be brought forward to strengthen the conclusion that Vivisection—*is not right.*

Those who are conspicuous in advocating and supporting Vivisection, are chiefly those in whom the moral sense is feebly developed—the ideal faculties inactive—the sympathies dormant—and the selfish part of their natures most vitalised; these are easily carried away by the prospect of adding to experimental facts, and if only they themselves, or human subjects, can be spared uneasiness or suffering, are apparently indifferent as to how excruciating, or prolonged, may be the agonies of breathing animals.

Could those who search into the closed and hidden mysteries of life, mentally place themselves, even for a few moments, into the position of the creatures they agonise, they would *then* realise what a terrible deed it is to doom other beings to a fate they themselves could not personally endure even in thought; it is this injustice which shocks the moral nature, and leads to the certainty that the Vivisector, who operates, and the Vivisectionist, who approves and sanctions such operations, are quite akin,—a dark partnership in sin acting and re-acting each on the other.

In the advance of a crusade against Vivisection, opposition arises from many different, unexpected, and seemingly plausible reasons. One class of persons will not believe that inhuman atrocities are committed upon living arteries, veins, bones, muscles, sinews, nerves, and every part of the animal organisation, because they do not witness them: these will not read the well authenticated printed details, bearing the names of those who notoriously perpetrate such acts,—others, especially women, allow themselves to be led by the medical man and the physiologist, whose interest it is, in their responsible positions, to guard off personal accusation, by assuring the public that the suffering is greatly exaggerated—that anæsthetics are used, when they know they are only had recourse to in exceptional cases, and not as a rule: those credulous enough to believe this, may be reminded that returning consciousness then reveals to the animal its mutilated condition, in many instances kept living for lengthened periods.

A moment's reflection would prove that the object of the Vivisector would be defeated by deadening the vital machinery, save when extra quiescence is scientifically required, *for the very name of Vivisector warns that he is an experimenter upon life, and life in its evidences of life*—not upon insentient inanition—his range of exploration is not with narcotic agencies which would more resemble dissection of the dead subject.

The physician and the surgeon, by familiarity with human pain and animal agony, are liable to become more and more hardened on the subject, and either unconsciously or consciously, strive to cultivate this induration among those whose sympathies still remain active, ladies mistaking so easily professional suavity for humane character.

Another class find a fancied stronghold in the argument that animals were made for man—for his service—for his food—true (?): but in defending Vivisection, those who thus reason pass beyond this permitted lordship, and fall into the false logic that it is therefore lawful to cut and carve them whilst alive, as if death, and torture inflicted during life, could bear any justifiable comparison.

Some people make it an excuse for neutrality, that animals are painfully put to death for human aliment. In reply to this it can be said that effort should be made to diminish in every possible manner this unnecessary form of cruelty. The abolition of Vivisection would ultimately tend to the vast amelioration in the condition of the animal creation, and their gradual freedom from brute-force tyranny; such rise in civilisation would award them more and more consideration, and realise to them their divine right—protection.

The fact of the lower creation being so necessary and useful to mankind, ought, as a first principle, to entitle them to an important share in our thought, and consisting as they appear so especially of material existence, is suggestive that their capabilities of agony *may be* even more intensified than our own, they not possessing, so far as we are aware, any power to abstract themselves from their own identity by higher resources; at least, that life they possess, whatever it may be, should be left intact until death.

It may be fairly asked, that whilst there is such a universal lamentation over the evil in the world, how can it be justified systematically to

add to the amount by creating what must be termed the art of abstruse torture, and the production of artificial disease. Should not the outraged feelings of a large and increasing number, abhorring such practices, be weighed against the philosophic dreams of speculative and possibly doubtful far off good?

That those who have studied the details of vivisecting work, already done in physiological laboratories—hideous enough to paralyse even indignation itself—and are aroused to join a multitude to protest against its continuance, should be called "*sentimentalists*," is a proof of the torpor that comes over the torturers of the innocent and the speechless. Such objectors can be answered by accusing them of being themselves the "*sentimentalists*," for they are enervating humanity—robbing it of its self-dependence—bribing it to lessen its ordinary amount of suffering—meanly inflicting on a weaker race what they lack courage to meet when the hour of trial comes—sapping the force of manly vigour and the strength of feminine endurance; this is indeed sickly and noxious "*sentimentality*."

Will the Vivisectors consistently agree, that when their day of retribution comes—as come it surely must—that it would be *sentimentality* for dread Heaven to take into the least regard the torments of such little beings as themselves?

Is it not strange that in the pre-eminent position given to anatomical and physiological science by one set of men, never has it been known for one of these nobly to offer up himself to his scientific idol. Would it not appear that one living human body of the same species must be of immeasurable value for greater knowledge by study than by the pangs of myriads of the animal world, differently constructed. Could such a sacrifice be admitted possible among *Vivisectors that one of themselves should be chosen for new investigations*, the general and easily swayed public would be somewhat startled at the sudden change by the whole party of Vivisectors, as to the momentous weighty balance of living research—*Moral law would then find itself pronounced as supreme*—not one would be found armed through self-sacrifice, plunging, like the great Roman, into the gulph of torture

Whilst viewing this painful subject let us offer a contrast.

The mind can wander back to the recollection that these dependent creatures shared the peace and enchantment of paradise, under the gracious and commanding rule of our first parents; their less expressed consciousness enjoyed the pastures of a perfect state—the ethereal atmosphere—the nutriment—the crystal waters; for them had also "waved the Eden trees,"

> "In the night-light—and the noon-light,
> Dropt and lifted—dropt and lifted,
> In the sunlight—greenly sifted,
> In the sunlight—and the moonlight,
> Shaded off to resonances,
> With a ruffling of green branches,
> Never stirred by rain or breeze."

Though associated in the penalties of our downfall, they were equally with mankind made recipients of a commanded rest—the claim of repose suggesting the duty of watching over them—hence, inferentially, the entire exclusion of torture. They were consigned to no intermediate or worse fate than ourselves; like man—to labour and to die.

Reasoning thus urges to the conviction that the Vivisector seeks his knowledge through the forbidden — his beauty through deformity — his philanthropy through blood.

Vivisection is man's crime,—not woman's.

It may be in vain to lash a sex—the male sex—not softly constituted with the god-like attribute of Mercy: *we seek to awaken woman to her full responsibility in this matter*, and strongly condemn her that this spectre, Vivisection, is overspreading its deadly shade upon the earth—threatening by its acceleration of sin, to descend from generation to generation, and to bequeath to our successors, what, if extended, must ultimately petrify the world into a moral wilderness.

Woman, as the chief possessor of the prerogative of mercy, must exercise it; she must delay no longer to strike the keynote of true civilisation, which will be found to consist in unselfishness, not in following after a physical perfection through the growth of self-indulgence and the trampling down of moral law.

A new education will be necessary in relation to Mercy, and this must be given by woman. She may no more recoil—either from ignorance, indifference, idleness, or opposition—from her Heaven-given, therefore, Heaven-required, moral dominion with man over the world, and inclusively over the animal kingdom, which should henceforth be special subjects of *her* benignant authority.

Man has been left out of the fulness of human, of moral proportion—left alone with his own nature, until it has fallen out of balance, even with itself—it is this solitude which threatens to arrest universal progress.

Sex is simply different human proportions—mental, moral, physical.

Man and woman are essential to each other—they belong to each other—they balance the scale of humanity. They are not constituted to govern each other. They govern, on earth, all beneath them. They, individually, govern their own natures—their intellectual and moral proportions independent of each corresponding counter-part proportion.

Man, as illustrating the ideal half of perfect humanity, represents power—physical, intellectual; is designed for energy, for use.

Woman, as illustrating the ideal half of perfect humanity — poetically, morally — represents pleasure; is designed for beauty and for ornament.

Man — mentally, morally — is created for woman. Woman—morally, mentally—is created for man.

Man is the prose of humanity. Woman is the poetry of humanity.

The whole symmetry of man's nature depends on courage—the earthly strength of man, his primary dignity—on which his greatness and command depend.

The whole symmetry of woman's nature depends on purity — the earthly strength of

woman, her primary dignity — on which her grandeur and command depend.

The soul of man and the soul of woman are by nature justly ad ministered to each other—being creatively and perfectly proportioned one to the other, united by mutual harmony.

Man and woman share humanity differently, but equivalently.

Man is intellectual—abstract-creative. Woman is intelligent—imaginatively-creative.

Man reasons—judges. Woman knows—acts.

In man, intellect is intricate—character is clear, simple.

In woman, character is intricate—intellect is clear, simple.

Man, a philosopher. Woman, a magician.

Man's qualities are solidity, decision, and sternness,

Woman's qualities are brightness, grace, and sweetness.

The forces of man's nature are roused into exercise by ambition.

The forces of woman's nature are roused into exercise by love.

Man feels—woman loves. Man is faithful—woman is devoted.

Man gives from his sense of power—woman gives from her sense of sympathy.

Man is unimpressionable—woman is impressionable.

Man is constituted to be more just than merciful. Woman is constituted to be more merciful than just.

Man needs the moral support of woman. Woman needs the intellectual support of man.

Man is the royalty of thought—reason. Woman is the royalty of morality—virtue.

Man is the majesty of force. Woman, the majesty of gentleness.

The will of man and the will of woman are created to act in perfect harmony—the will of each half differing according to their mental and moral proportions—and, consequently, when exerted, the two wills are incapable of coming into collision.

The relation of man and woman is that of a perfected self. The division of self doubles and varies its pleasures—divides its responsibilities.

If man and woman, as one idea, be the full-developed human being, man can never be ruled by woman, nor woman ruled by man—for both powers, acting on each other, are equally personal self-government—each half individuality being essential to the other.

For human perfection man and woman are to exercise over each other a sway of mutual natural weight and extent, imperceptible except in its results.

Man and woman are the king and queen of nature—intellectual and moral union the balance scale, the crown that makes the government complete.

Both must reign and command—this is the sovereignty—the glory of Humanity.

Woman's nature has not been directly proportioned to man's nature in the government of this earth—the past hazy, dim, mystic restraint of indirect influence has proved powerless to grapple with the subjugation of evil.

Woman must arise as the moral star of our humanity—shining calmly, clearly, brightly, with luminous beauty, over the darkened state of mere material and intellectual science. Forsaking man no more to say,—

"She disappeared and left me dark;"

but rather may he joyfully exclaim,—

"On she came,
Led by her heavenly Maker, though unseen,
And guided by His voice.
Grace was in all her steps,
In every gesture—dignity and love."

So crowning man's horizon of strong knowledge and desired power, by hers—beyond—above—of Love—and Moral purity for all, ... falling the Upper Light more brilliantly on Woman's.

Our word is this. We know of no fact in Human Physiology of the least importance as to the preservation of health or the cure of disease, to the discovery of which one moment's torture of any animal was necessary; and we consider the practice of vivisection by medical students to gratify a useless curiosity as brutal and demoralising, and that no man who practises such needless and utterly useless cruelties on animals can be fit to have the care of his fellow-creatures of his own species. For far less serious offences, the Royal Society for the Prevention of Cruelty to Animals sends cabmen and costermongers to prison. Is it not time to turn its attention to the far more deliberate and less excusable ruffianism in our hospitals and colleges?

THE WEATHER AND THE PUBLIC HEALTH.—The fatal effects of the cold weather and fog of one week in February last were seen in the Registrar-General's return. There were 2475 births and 2005 deaths registered. The births were 50 below and the deaths were 373 above the average. The deaths showed an increase of 395 upon those returned in the previous week. The annual death-rate from all causes, which in two previous weeks had been equal to 26·5 and 24·1 per 1000, rose in the following week to 30·0. The deaths referred to diseases of the respiratory organs, which in two previous weeks had been equal to 473 and 465, rose in the following week to 622, which exceeded the average weekly number by 241; 410 resulted from bronchitis, and 118 from pneumonia.

WOMAN'S POWER.—In the grand elevating process I consider woman the more important power. Man is more efficient for progress, but woman for elevation; man may lay a broader scientific basis, but woman will build higher up toward heaven. The world has just reached the stage of civilisation in which woman can show her elevating power in medical science, in education, and in religion. Woman's power being chiefly moral and intuitional, while man's is chiefly physical and intellectual, it follows that in proportion as society attains a higher condition, woman's powers are more appreciated and more influential. In barbarism woman is a beast of burden, but in the highest civilisation—which is not yet attained—she is the social queen.—*New York Herald of Health.*

PROGRESS IN FORTY YEARS.

A DOCUMENT published in the *Alliance News* says :—Forty years ago the foreign commerce of our country was only about one-sixth of what it is to-day. To show this, we may state that for the three years ending 1834 our exports averaged less than £39,000,000 per annum; for the three years ending 1874 they were over £250,000,000 annually. The result of this vast increase in our foreign trade has been that we have had such a great demand for labour as to remove all possible excuse for pauperism, and also all pressure of want that might be used as an apology for the perpetration of crime.

Forty years ago the scholars in our day schools numbered less than 600,000; now they exceed 2,500,000, whilst our Sunday schools have advanced with a rapidity almost rivaling that of our day schools.

Forty years ago there were very few newspapers, magazines, or other publications issued for the improvement or entertainment of the people, but now they abound, and to-day we can get for a penny what formerly cost sixpence. Books are also much cheaper, and they are far more extensively circulated than formerly.

Forty years ago the labouring classes of the country were compelled to work twelve or fourteen hours daily, but now they work nine hours and a half only, and some even less, whilst wages are considerably higher now with the shorter hours than they formerly were during the period of long hours.

Forty years ago very little attention was paid to sanitary matters. The streets and gutters of our towns and villages were receptacles of filth and hot-beds of disease, whereas now officers of health cover the country, sweeping away such nuisances as are thought to be detrimental to health, and compelling the social arrangements of the people to be put in harmony with the laws of health.

That is encouraging; but the statistics of ignorance, intemperance, crime, disease and mortality, show that there is something yet to be done.

PROFESSOR NEWMAN ON VIVISECTION.

A correspondent forwards for insertion in the *Bristol Post* the following extracts from a letter lately written by Professor Newman to a resident in Bristol:—"I can attest that, between the years 1835-1840, my late friend, Dr. James Cowles Prichard (then, by reason of his joint literary and medical eminence, an intellectual leader in Clifton and Bristol), assured me that vivisection had added *nothing whatever* to the physician's power of healing. . . . If anyone now assert the contrary, we can adduce what the great French surgeon Nelaton asserts—that there is no such thing as scientific *medicine*, and that every source of information is delusive which is not derived from direct observation of the patient. Evidently the reason why it is wicked to torture a *man* is *not* because he has an immortal *soul*, but because he has a highly sensitive, nervous *body;* and so has every vertebrated animal, especially the warm-blooded. If we have no moral right to torture a man, neither have we a right to torture a dog. If any surgeon or professor can do it *without himself feeling agony*, he has hardened his heart, and is wholly untrustworthy as to the sufferings of another. He does not observe them so as to know them when he feels nothing. We have to add to our morals a new chapter on the RIGHTS OF ANIMALS. Men who teach to trample them down are teachers of hard-heartedness and real enemies of mankind, while they undertake to promote human welfare. The practice of vivisection in order to learn science, is comparable to the mediæval idea of selling one's soul to the devil. The contents of a witch's cauldron were once esteemed curative. We have to unlearn artificial modes of health, and learn to strengthen vitality as the only chance of restoration. Without common sense we cannot get any sound science.—Weston-super-Mare, December 28, 1875."

Millions of the English people live on less than sixpence a-day for food; but the worst of the matter is, that in their ignorance they do not know how to make the most and the best of the sixpence. White baker's bread and dripping, washed down with cheap tea barely coloured with what is sold to the poor for milk is the common food of great multitudes. We talk of "well fed Englishmen," but there are multitudes of people in this country really worse fed than any population in Europe.

THE PLAGUE.

To the Editor of the HERALD OF HEALTH.

SIR,—I enclose a cutting from this evening's *Echo* regarding the prospect of a reappearance of plague in this country. Try to find a corner for it in the *Herald* :—

"The very possibility of such a disaster as the appearance of plague in this country, should rouse all sanitary reformers to united and energetic action in teaching the people the laws of health."

The formation of the Co-operative Sanitary Company, Limited, may prove a national blessing.

The public are tired of speculative adventurers who have enriched themselves at the expense of those who have hastened to invest in worthless schemes. But the objects of the Co-operative Sanitary Company must commend themselves to the common sense of every man, and the soundness of the scheme in a a commercial point of view seems self-evident.

By all means then push on the work. If during the next few weeks 1000 persons cannot be found to invest £100 each, at good interest, to promote such noble and needful work, then 4000 persons may be found to invest £25 each. Seven per cent is good interest, even if more is not obtained, especially when the capital is safe. And if each reader of the *Herald* were to apply for even one share only, the object would, I presume, be attained.—I enclose my card and remain yours truly, A SAMARITAN.

4 Castledine Road, Anerley, S.E.,
11th January, 1876.

SANITARY CO-OPERATION.

We beg to call the attention of every reader to the condensed prospectus of the

Co-operative Sanitary Company (Limited),

which, as a legal corporation, will carry on our work, we may hope for generations to come, or as long as such a work is needed. It is a great work, and it can be done effectively only by combined co-operative effort. We must work together, clubbing our means and intensifying our energies by the magnetism of associated action.

In the organisation of the Co-operative Sanitary Company (Limited), we have adopted the simplest and most effective form. Every body corporate must have a true life. In this matter also, "Human Physiology is the basis of sanitary and social science." The model of every human organisation must be found in man. Every body must have a head, a united will, an active intelligence, a clear memory, a restraining and guiding conscience. As every ship must have its captain, every army its commander, every school its master, every work its foreman; so every corporation must have its guiding intelligence—its real manager. Our company has its manager, who will direct its operations; its secretary, who will record them; its audit committee, who will watch over them like a presiding conscience, and guard all interests, solicitors, who will advise, and act if need be, bankers, who will keep its treasury.

The co-operative principle is carried out in all working together, combining means and uniting influence; but it comes in technically, and very effectively we hope, in this way. Every agent or dealer (newsagents, booksellers, chemists, grocers, &c.), may reap a double profit from our work. First, he will get, of course, his regular profit on sales; and next, he may get a handsome dividend on his share or shares. He will be doubly, and we hope trebly, interested in profits, in dividends, and in the beneficence of the work itself, and the good he may do by its promotion. If we can get every dealer to take at least one share in the Co-operative Sanitary Company (Limited), its success is sure. He will push it for his own sake, and in promoting his own interest, he will secure that of the whole body to which he will belong.

Almost every person can take at least one share. The price is only Two Pounds, but only One Pound is to be paid at subscribing—the rest when the allotment is made, of which due notice will be given. No more capital will be called for than can be profitably invested. Every member will receive interest on the amount paid in from the day of payment. Those who prefer to do so can pay in full at once, two pounds on each share, and draw interest accordingly.

The Company is "Limited"—that is, no member can ever be called upon for more than the amount of his subscription. If he take one share, two pounds is the whole extent of possible loss. There are no afterclaps. If the Company should owe a million, no member could called upon for a penny beyond his shares.

Of course there will be an annual meeting members, as required by Act of Parliament, and an annual balance-sheet, properly audited, will be sent to every member. In all respects the Company will be managed strictly according to the Companies' Acts, under which it is formed and registered, and legally incorporated.

The work of the Co-operative Sanitary Company (Limited) is to carry out, extend, and carry on the work we have begun. It will publish the Herald of Health, beginning with the January number, and as soon as possible make it a vigorous and far-reaching weekly. It will publish the Health Almanack. It will publish all our works on Sanitary and Social Science, and all the good and useful books we can find on these vital subjects. It will carry out, manufacture, and supply Sanitary Inventions, Hygienic and Hydropathic Appliances, Sanitary Foods—as The Food of Health, the Wheaten Groats, Fresh and Dried Fruits, Fruit Sirops, &c., &c. It will organise lectures, conferences, and other means of teaching the people the best means of preserving health and increasing the value of life.

As to profit—as to the pecuniary inducement to investors—we wish to make that a secondary consideration. It can be nothing compared to the good that may be done. Still, business is business; and when a business is carefully managed, its profit will be in proportion to its success. There will be a margin of profit in every department of our work, with the exception, probably, of lectures and conferences, propagation and indoctrination: and any loss there may be charged as advertising, and will come back abundantly in other ways. There is no better paying property than a well-established periodical. Popular books pay well, and often make large fortunes for their publishers, and sometimes for their authors. The food staples come under the regular laws of trade; and whether we like them or not, we must conform to them. Mr. Ruskin does not like railways; but he does not drive in his carriage from London to Oxford, from Oxford to Coniston, nor from Coniston to Italy. Those who have read our October and November numbers, on the preservation of fruits, butter, eggs, &c., will see that the gross profits of some of these operations will be very large of necessity, unless we give away the proceeds, which we should do if we sold below the market price. Suppose grapes of a certain quality are selling for a shilling a-pound, and we have a few tons that have cost us threepence a-pound, what are we to do with them? If we sell at wholesale for less than the market price, we should only be making a present to the retailers. It would be no profit to the consumer. But our shareholders would get back not only the profit they paid, but what others paid, in their dividends, as every tradesman also a shareholder would have a double profit, doubly increased by all he could sell. The end of our work will be to increase and equalise supplies, and lower prices and profits; but this can be only done gradually. In the meantime, our revenues and dividends must be

large of necessity. A capital of a million would not for some years much disturb the prices of great staples of human consumption.

The mode in which we shall divide our profits will strike every one as favourable to investors, and at the same time fairly equitable to all concerned. They will be divided equally, or according to agreement, between the shareholders and the owners of copyrights, patent rights, and other individual interests worked by the company. In case of doubt as to equity, the manager will consult with the Audit Committee, the corporate conscience, whose duty will be to protect all interests, and as far as possible secure all rights. But dividends, or interest on capital, up to seven per cent., will be paid before all other interests. Authors, inventors, proprietors must wait until this minimum be secured to shareholders. If there be more it will be divided; and if those most deeply interested get anything, the shareholders *must* get more than seven per cent. Our opinion is that they will never get less than ten per cent., and that for some years the shareholders' profits may reach fifteen, possibly twenty per cent., even leaving an adequate reserve fund for contingencies and enlarging operations. We make no promise; but we state our deliberate conviction.

THE RESPONSIBILITIES OF WEALTH AND POWER.

THAT knight-errant of charity, the Marquis of Townshend, has become a Knight of the Order of Good Templars. Her ladyship, the Marchioness, has also joined the Order, as has also, we believe, Lord Raynham, the noble heir of the marquisate. The Marquis of Townshend has also given his adhesion to the United Kingdom Alliance, and taken steps to banish all sale of intoxicating liquors from his estate without waiting for any Permissive Bill, or going through any process of counting noses to facilitate the operation.

Lord Derby does not quite see his way to banish alcohol from his estates. The public houses which pay him revenues count by thousands, and in some places stand very near together. From their frequenters tons of coppers, which some philosopher's stone turns into gold, roll into his banker's vaults. The result is many picturesque black eyes and bloody noses; many women kicked and children smothered or starved; many prisoners gathered into the cells by policemen; much money paid to publicans, and also to pawnbrokers; factories standing idle on Mondays; work badly done; life badly wasted.

In some way—we do not quite see in what way—but surely in some way, Lord Derby, this wild and wicked work must end. You have more responsibility for it than any man in this world, for you own more public houses probably than any living man, and you are England's representative among the nations. The beating and kicking of wives, the starving of little children, and the filling of jails, poorhouses, lunatic asylums, and untimely graves in Lancashire, comes more nearly home to the Foreign Secretary of the Majesty of England than to any other. England's Prime Minister has no such responsibility. He is not a great landed proprietor. He is not the inheritor of a great name—unless we go far back for its origin—nor a great estate. Probably the extent of his territorial powers would be the disestablishment of two or three beer houses, if so much as that. The great man who governs the greatest empire in this world was an obscure literary adventurer who has risen by the supreme force of genius to this height of power. He governs England, and a large portion of this planet, and confers great dignities and lofty titles, because he has the power to govern also noble lords and powerful commoners; and because he can "govern men" he can also "guide the State."

No disrespect to Earl Derby. Far from it. Few more sensible, hard-headed statesmen than he. He does not see his way to permissive legislation, nor believe in the power of law to banish the great evils and miseries of life. We do not blame him for that—but we have a right to expect and require him to do something to improve his own property, and the physical, intellectual, and moral conditions of those over whose destinies Providence has placed him as landlord and as legislator. To whom can we look for such work if not to the noble and illustrious leaders and rulers of men?

DR. CRITCHETT, the eminent occulist, said a good thing the other day about Captain Montagu, which was telegraphed all over the three Kingdoms, and perhaps around the world. Dr. Critchett said:—"Nature is doing her best to repair the wound." It was a wise and modest observation, and Lord Hinchinbrook was quite right to telegraph it to all the newspapers.

CHAPPED HANDS.—A simple remedy is found in every one's kitchen closet, and it is nothing more than common starch. Reduce it to an impalpable powder, put in a muslin bag, keep it in the table drawer. Whenever you take your hands out of dish-water or suds, wipe them dry with a soft towel, and while yet damp, shake the starch bag over them, and rub it in. The effect is most agreeable.

INSANITY.—Madness falls heaviest in Paris on the artisans and cooks. Next to them is the trading class. Insanity is not frequent in men belonging to liberal professions, and the proportion is lowest among gardeners and spade labourers.

LORD LYTTON ON WATER CURE.

The late Lord Lytton, then better known as the novelist, Bulwer, author of "Eugene Aram," "Pelham," &c., broke down utterly in health at forty. He had lived too fast, and perhaps worked too hard also. He went to our beautiful Malvern, and here is an account of his experience of the water cure, from a volume of "Pamphlets and Sketches," just issued by Routledge and Sons.

I had fancied that, whether good or bad, the treatment must be one of great hardship, extremely repugnant and disagreeable. I wondered at myself to find how soon it became so associated with pleasurable and grateful feelings as to dwell upon the mind amongst the happiest passages of existence.

For my own part, despite all my ailments, or whatever may have been my cares, I have ever found exquisite pleasure in that sense of *being* which is, as it were, the conscience, the mirror, of the soul. I have known hours of as much and as vivid happiness as perhaps can fall to the lot of man; but amongst all my most brilliant recollections, I can recall no periods of enjoyment at once more hilarious and serene than the hours spent on the lonely hills of Malvern—none in which nature was so thoroughly possessed and appreciated.

The rise from a sleep sound as childhood's—the impatient rush into the open air, while the sun was fresh, and the birds first sang—the sense of an unwonted strength in every limb and nerve, which made so light of the steep ascent to the holy spring—the delicious sparkle of that morning draught—the green terrace on the brow of the mountain, with the rich landscape wide and far below—the breeze that once would have been so keen and biting, now but exhilarating the blood, and lifting the spirits into religious joy; and this keen sentiment of present pleasure rounded by a hope sanctioned by all I felt in myself, and nearly all that I witnessed in others—that that very present was but the step—the threshold—into an unknown and delightful region of health and vigour—a disease and a care dropping from the frame and the heart at every stride.

I desire in no way to overcolour my own case; I do not say that when I first went to the water-cure I was afflicted with any disease immediately menacing to life—I say only that I was in that prolonged and chronic state of ill-health, which made life at the best extremely precarious; I do not say that I had any malady which the faculty could pronounce incurable, I say only that the most eminent men of the faculty had failed to cure me. I do not even now affect to boast of a perfect and complete deliverance from all my ailments; I cannot declare that a constitution naturally delicate has been rendered Herculean, or that the wear and tear of a whole manhood have been thoroughly repaired.

What might have been the case had I not taken the cure at intervals, had I remained at it steadily for six or eight months without interruption, I cannot do more than conjecture, but so strong is my belief that the result would have been completely successful, that I promise myself, whenever I can spare the leisure, a long renewal of the system.

These admissions made, what have I gained meanwhile to justify my eulogies and my gratitude? An immense accumulation of the capital of health. Formerly, it was my favourite and querulous question to those who saw much of me, "Did you ever know me twelve hours without pain or illness?" Now, instead of these being my constant companions, they are but my occasional visitors. I compare my old state and my present to the poverty of a man who has a shilling in his pocket, and whose poverty is therefore a struggle for life, with the occasional distresses of a man of £5,000 a-year, who sees but an appendage endangered, or a luxury abridged.

All the good that I have gained is wholly unlike what I have ever derived either from medicine or the German mineral baths; in the first place, it does not relieve a single malady alone, it pervades the whole frame; in the second place, unless the habits are intemperate, it does not wear off as we return to our ordinary pursuits, so that those who make fair experiment of the system towards, or even after, the season of middle age, may, without exaggeration, find in the latter period of life (so far as freedom from suffering, and the calm enjoyment of physical being are concerned) a second—a younger youth! And it is this profound conviction which has induced me to volunteer these details, in the hope (I trust a pure and kindly one) to induce those, who more or less have suffered as I have done, to fly to the same rich and bountiful resources.

Bien! The Malvern hills are beautiful as ever—Malvern water as pure—Malvern air wonderfully salubrious. Wilson and Gully are there no more, and we cannot say much for their successors,—but the hills, the air, and the water are there, and health is there for those who know how to seek it.

A Good Word for Porridge.—A recent writer in *Cassell's Magazine* says:—"We call it the food for bone as well as brain, muscle as well as mind. To the labouring or artisan class it commends itself on account of its cheapness, the readiness and economy with which it can be cooked, and while it is easily digested, it contains a larger proportion than wheat of the elements that go to form bone and muscle. It commends itself to literary men, and all workers who earn their bread by the sweat of their brains. We happen to know several well-known authors who, though born and bred this side of the Tweed, swear by oatmeal porridge as a brain-inspiring compound. There are many Scotch households in London where porridge and milk form the staple of the morning meal—a capital "basis of operation" to begin the day's work on. These families will tell you that old and young alike thrive famously on it.

Unselfish good will lead straight on to all truth and goodness.

MERCENARY DOCTORS AND MISERABLE DUPES.

Here are two letters—one from a patient who "has suffered many things of many physicians;" the other an answer. When the latter was written and in its envelope the thought came—why not give the same advice to the thousands who need it? So here it is. When people have spent £10 to £100 on impostors or those whose ignorance is just as bad in its consequences, they come to us. There is one fee or none; and if they follow our advice they are cured. In all cases of nervous exhaustion there is dyspepsia. In all cases the cure must begin by curing that. But here are the letters:—

"Sir,—I write to know if you can do me any good. I have been duped by just that same person you exposed in the September number of the Herald of Health. He sent me 'Professor' ———'s appliances and pills. I sent the things back in six weeks, but the rogue did not return my money, and —— (a list of so-called doctors) have all duped me, and robbed me of pounds and pounds. Please write as soon as you can, for I am in such distress of mind that I know not what to do."

We omit symptoms and description of the case, and give our answer just as it was written. Its publication was an afterthought.

Dear Sir,—"While there is life there is hope," but as you ought to know by this time, there is no hope in the things prescribed by these doctors.

Your one hope is in going to the centre of the case—beginning the cure with a good nutrition—which will make good blood, good nerves, and build up anew your whole body.

Take brown bread or its equivalents—milk, fruit, not more than three times a-day, and at intervals of not less than five hours.

The quantity must be *inside* of your digestive power. In all these cases that power is weak, and the craving for food strong; you must not be guided by that craving. Take very little food; eat and sip very slowly; be a long time about it. Resolutely starve yourself for a few weeks—that is, take but a few ounces a-day, six or eight, say—and as the digestive power increases, you can take more. But this you *must* do. No stimulants of any sort—no tonics. Nature must do her own work.

Do *not* take long walks or fatiguing exercise of any kind. Lie down when tired; with your two fists beat gently and rapidly over all the soft parts of your body, a few minutes, twice a-day.

In the morning wash all over first with hot water, then finish with cold and a good rubbing.

Take a warm sitz bath going to bed, ten minutes. Morning or mid-forenoon a cold one for two or three minutes.

See "Esoteric Anthropology" or "A Woman's Work in Water Cure."

If costive, eat coarse wheat meal, or wheaten groats, prunes, spinach, figs—food that will secure at least one evacuation a-day.

Can you adopt this regimen? Can you deny yourself and take up this cross? If you can you will be cured. Cure your stomach and its nerves, and they will cure the whole body.—Yours truly, with all the New-Year's best wishes.—T. L. Nichols.

P.S.—I say nothing of fees. If you have money join our Company. One part of our work is to exterminate this quackery. It cannot be put down by law, because the legally qualified medical practitioners are just as ignorant, and in many cases just as rascally and rapacious as the others. They give stimulants, tonics, alteratives, sedatives; iron, iodine, potassium, mercury—fill the blood and poison the nerves with all this pernicious trash—exchanging these base metals for their patients' gold; and doing them no good. In many cases nature cures in spite of medicine. Nature cures all curable diseases if we only give her a fair chance to do so. We can help her if we are wise; but surely not by filling a weakened stomach with potions that would make a well man ill—not by stimulating jaded nerves, which ask only rest and good nutrition. The surgeon can *set* a broken bone; nature alone can mend it; and he can no more mend a weak stomach or disordered nerves, than he can unite flesh or broken bones.

The only way to exterminate quackery, regular or irregular, legal or illegal, ignorant or mercenary, is to teach people the principles of Physiology and the laws and conditions of Health. This is what we are doing with the "Herald of Health"—and all the books it advertises. We shall have the opposition of all ignorant or mercenary quacks, qualified or unqualified; but we shall have the support of all intelligent, honest, and philanthropic people.

Brown Bread.—The writer of a series of papers on Food, in the *Cornhill Magazine*, when it was edited by Thackeray, says:—"The sufficiency of vegetable food, if widely varied, to maintain health and give strength, is not to be questioned. The Romans, in the best period of the Republic, largely sustained themselves on turnips. Bread and preparations of wheat and similar grains seem to be the best and cheapest single article of food. Alone, bread is far superior to meat alone. 'A good, pure brown bread,' says Dr. Brinton, 'of simple wheat meal, would, for equal money value, give the labouring population a food incomparably more abundant and nutritious than that they now make use of as pure white bread.'"

EGGS:

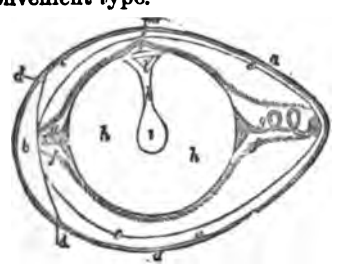
STRUCTURE, USES, AND PRESERVATION.

Few things so common in this world as eggs, and few so remarkable. Seeds are the eggs of vegetables, eggs the seeds of animals. Tyndall tells us the common atmosphere is full of eggs—the germs of living creatures; and that if the air is perfectly filtered so as to exclude these invisible germs, there can be no putrefaction of vegetable or animal substances, and no production of infusoria. To preserve things, then, it is not necessary to exclude the air, but only what the air contains, in the way of eggs.

Men eat the eggs of birds, fishes, and reptiles. Turtles' eggs are considered very nice eating; the eggs of herring, cod, and other fishes, are devoured by millions; and those of pigeons, plovers, hens, ducks, geese, and turkeys, are consumed in great quantities. Even the great eggs of the ostrich are eaten, and one of them will make a good meal for six persons.

Eggs contain all the elements of nutrition in very accurate proportions. As the bird comes from the shell fully formed, the egg must contain all the necessary materials for its formation—matter of bone, feathers, muscle, brain, all organs and tissues. The egg is formed from the blood—the blood, of course, must contain the proper materials for building up and nourishing the body. Carbon, hydrogen, oxygen, calcium, sodium, sulphur, phosphorus, are contained alike in the egg of ostrich or condor, and the minutest form of insect life. And the same elements are also contained in the seeds of plants—in grain and fruits.

The structure of an egg is not so simple as we might suppose. Here is an ideal section of our common hen's egg, which may be taken as a convenient type.



First we have the shell (*a a*), formed of carbonate of lime and animal matter; hard, brittle, but so strong that pressing the two ends with the hands, it would take a very strong man to crush it. This beautifully formed shell is so porous that the air passes freely through it. An egg absorbs through these pores whatever taint or odour the air about it contains, so that eggs should be most carefully kept from all sources of corruption.

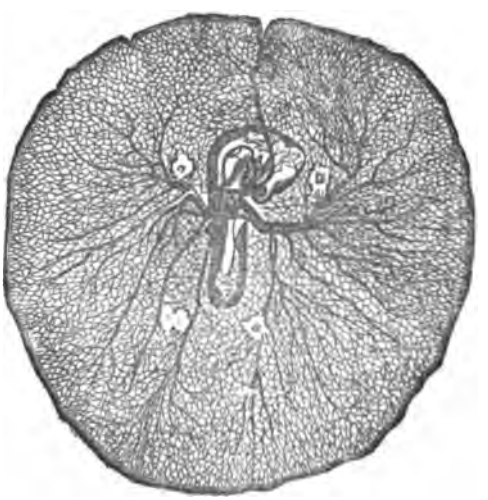
At the large end of the egg is an open space (*b*) filled with air to supply oxygen to the germ. This space is formed by the lining membrane (*c*) splitting—by natural selection, or some other sufficient cause at (*d*) into two layers, which form the air sack. The outer portion of the egg, the white, is almost pure albumen, in three layers, the thinnest outside bounded by the line (*e*), the middle, *e* to *f*, the thickest within the line *f*. The yolk of the egg, the round yellow portion (*h h*), composed of albumen, oil, and other matters, is held in its place by two ropes of twisted fibres (*g g*)—more natural selection—and in the centre of the yolk (*i*) is a cavity which communicates by a tube (*k*), leads to a sort of cushion (*l*), on which rests the germ (*m*), which, being fecundated at the proper stage, becomes a chicken by a wonderful process similar in all animals, but most easily observed in the eggs of fowls, and the successive steps of which are minutely described in "Human Physiology the Basis of Sanitary and Social Science," from which we have borrowed these illustrations.

Observe, that by another action of that wonderfully intelligent principle — natural selection or the survival of the fittest—the yolk of the egg is so suspended and balanced that however it is turned the yolk floats high in the white, and the germ is always uppermost.

When the process of incubation by the application of either natural or artificial heat is begun it is very rapid, as will be seen by the view of a hen's egg on the following column.

The body is in its rudimental, grub-like form, the heart is acting under nervous influence, and blood vessels, like the roots of a plant, are absorbing nutritive matter.

By the eighth day the different organs of the body can be clearly distinguished; but the head, as it contains the forming brain, constitutes more than half the bulk, while the eye, which a



chicken must use perfectly to feed itself as soon as it is hatched, is out of all proportion to the head. The yolk of the egg, its richest portion, is

here seen enclosed in a membrane, and being absorbed through vessels which unite to form the umbilicus, a process very similar to what takes place in the development of the mammalia.



All this curious matter can be studied in either of our physiological works: but we have a few words to say on the more homely subject of eggs as an article of diet. Eggs are like milk. They are alike formed from the blood; and they alike contain the nutrition which young animals require. Both depend for their purity and healthfulness upon the sanitary condition of the animals that produce them. A diseased cow cannot give healthy milk, nor a diseased fowl lay healthy eggs. Cows and hens should have good air and good food—all health conditions.

Milk, as we know, can be preserved for any length of time by condensation, and exclusion of air. We have very good milk in tins, and some also in dry powder; but in both cases the flavour is altered by heat.

Eggs may also be dried, and the powder used for cakes, and other food preparations; but we do not think egg powder would make a nice omelet. The best way is to preserve them—as nature has done to a certain extent—in the shell. By a newly-patented process, eggs can be kept perfectly fresh and good for months and years. We have eaten eggs so preserved more than two years after they were laid. By one portion of this process—which is neither troublesome nor expensive—every family could put down its eggs when they are most plentiful, and therefore cheapest, in the spring-time, and have them quite fresh and good at Christmas, when they are scarce and dear. Every family might save a good deal by this operation, and hotel or restaurant-keepers, bakers, confectioners, &c., in proportion. By the complete process, under the new patent, eggs can be packed and carried round the world.

FISH AS FOOD.

As a source of nutriment, as a field of profitable industry, extending enormously the area of food production, admitting of vast expansion, which can be worked at every season of the year, requiring no outlay in seed or tillage, and no artificial stimulants to renew their harvest (for the fisherman reaps where he has not sown and gathers where he has not scattered), the British sea fisheries deserve the consideration of all who feel how largely the comfort and well-being of a people rest upon that humble but solid basis—abundant and low-priced food. It may be roughly estimated that London actually consumes 800,000 fat cattle, which at an average of six hundred weight each would amount to 90,000 tons of beef. At the present time there are certainly not less than 900 trawling vessels engaged in supplying the London market with fish; and assuming the annual take of each vessel to be only ninety tons, this would give a total of 80,000 tons of trawled fish; but this computation is irrespective of the vast quantities of herrings, mackerel, sprats, and fish caught by lines, drift nets, and seines. An acre of land properly tilled will produce every year either a ton of corn or three hundred weight of mutton or beef; but an area of good fishing ground of the same extent at the bottom of the sea will yield to a persevering fisherman a considerably greater quantity of nutritious food every day in the year. It was computed by the late Mr. Mayhew, in his work on the "London Poor," that during the months of October and November, or what is termed the costermongers' fish season, 800,000,000 of herrings are disposed of in the streets of London alone, providing a cheap and wholesome meal for thousands and tens of thousands of the humble classes of the metropolis. The prejudice against a fish diet which was long current was based upon the assumption that it yielded but little nutriment. The result, however, of an analysis of various kinds has proved that they contain nearly as much albuminous matter as the flesh of quadrupeds—hence, as flesh-producing food, fish is nearly equal to beef. The herring contains, moreover, a large quantity of oleaginous matter in addition to its albuminous principle, by which its nutritious properties are considerably increased. It is evident, therefore, that fish were designed to occupy an important place in the sustenance of mankind, and it certainly contributes agreeably to that variety of diet by which the human frame is maintained in its highest degree of vigour and health. Nitrogen is a well-known and important vital stimulant, and the proportion of nitrogen relatively to carbon, estimated in grains, is in flesh meat as 160 to 2580, and in herrings, 217½ to 1435. Fish is a flesh and muscle, not a fat, producing element, as is obvious from the appearance of our seafaring population, who are spare, sinewy, and strong, and free from those mountains of flesh and masses of blubber which characterise the prosperous beef-eating Englishman, and have from time immemorial typified the traditional John Bull. —*Blackwood.*

INTOXICATING liquor can only be obtained by the waste and absolute destruction of that food which is provided by a beneficent Being for the sustenance of His children. It has been calculated that, in Europe and Asia, the sugar and albumen destroyed in the fermentation of the grape to produce alcoholic wine, would suffice to feed thirty millions of our [illegible]n population.

HOW TO BREATHE.

Messrs. Trubner & Co. have recently published a little book, which, in five little words, would give us a very "elixir of life," a preventive of one-half the present human mortality, and of more than half "the ills to which this flesh is heir." The author, George Catlin, having "devoted the greater part" of his life in visiting the natives of North and South America, has ascertained, after great labour and research, that in their *primitive state* the sanitary condition of these races is immensely superior, the death-rate far lower than that of civilized communities, justifying the conclusion that the latter are subject to some "hidden cause of disease which the Materia Medica have not effectually reached." This cause he believes to be "the abuse of the lungs" in "mal respiration," owing to the too prevalent habit of sleeping with the mouth open—the inroad of "a great proportion of the diseases prematurely fatal to human life, as well as mental and physical deformities, and destruction of the teeth." This theory originated in his (the author's) personal sufferings from lung disease when compelled during his travels to sleep out-of-doors, where his unconscious bad habit nearly cost him his life. Eventually conquering it he thereby secured a freedom from disease, and an ability to bear unwonted exposures astonishingly contrary to former experiences.

Continuing his "ethnographic labours" with new zest, he was forcibly struck with "the customs of the Indian women," who, after nursing, invariably close the mouths of their infants, and carefully—cruelly if necessary—"press their lips together when asleep." He afterwards observed that the finest native races are those who have been reared under the discipline of such mothers; that people who live to great age have "nearly always firmly closed lips;" that restless nights, snoring, nightmare, "that frightful (and although not generally supposed) *deadly disease*," result from the "over-draughts" of impressed air drawn through the mouth instead of through the nostrils, "which have been mysteriously constructed and designed to stand guard over the lungs, to measure the air, and equalise its draughts."

After many explanations, arguments—apparent proofs—he most earnestly appeals to both old and young, especially to *mothers*, who are either "the physicians and guardian angels" of their infants, or "the primal causes of their misery," being empowered to ward off disease "through the *one certain* and efficient remedy," and who must remember that "the great secret of life is the *breathing principle*," whilst "we see that the first thing that is *taught* to infants in the civilised world is to sleep with the mouth open!" Boys and girls are implored to realise "the dangerous race which civilised man runs in life," and by "determined resolution" to resist the enemy of that sleep which is properly "*the food of life*." They must know, too, that not only is "manly beauty produced, and manly firmness of character expressed by a habitual compression of the lips and teeth, but courage, steadiness of the nerves, coolness, and power are the infallible results." (This assertion harmonises with Dr. Nichols' counsels in "Behaviour"—assuring us that we may actually become what at first we only wished or appeared to be.) *Young ladies* are urged to consider that "*idiots asleep* cannot be *angels awake!*" That those who ndulge in open-mouthed rest are idiotic (in appearance at least), he unanswerably reveals in some amusing sketches of natural and of unnatural sleep.

Altogether this is an intensely interesting book. I cannot help believing it to contain much truth, although its enthusiasm may sometimes run into extremes. Surely one great cause of our civilized disease and mortality is our unnatural and dissipated habits—our late hours, fashionable unhealthy dress, and too constant use of animal food, "made dishes," and alcoholic drinks. I anxiously await the opinions of our esteemed Editor. If he coincides with Mr. Catlin, certainly none will be more solicitous than he to re-echo the solemnly reiterated exhortation—"Sleep with your Mouth Shut."

January 13, 1876. Ellen J. Pearce.

Mr. Ruskin, in the last *Fors*, says:—"Bishops cannot take, much less give, account of men's souls—unless they first take and give account of their bodies." Also he says that—"When the true nature of theft, with the other particulars of the moral law, are rightly taught in our schools, grown-up men will no more think of stealing in business than in burglary." Then he goes on to say that though his friends laugh him to scorn for thinking to find in England "men of truth, hating covetousness," still "even out of the rotten mob of money-begotten traitors, calling itself a people," he believes he "shall be able to extricate, by slow degrees, some faithful and true persons hating covetousness and fearing God;" for, he says—"persons desiring to be rich, and accumulating riches, always hate God, and never fear Him." *Fors Clavigera*, of which this is the 62nd number, price tenpence, is to be had of Mr. George Allan, Sunnyside, Orpington, Kent.

Frozen and Starved.—On Saturday morning, 5th February, a girl of 18 was found in Spitalfields, lying on the ground, nearly naked, quite insensible, covered with vermin, frozen and starved. At the inquest, Dr. Holt said that, "even with his large experience in such deaths, this was the worst he had ever met with." But where are Mr. Ruskin's Bishops, when men can talk about a *large experience* in such horrors?

A MODEL VICAR.

When one reads the New Testament, he finds that a large portion of the recorded life of our Lord on earth was spent in feeding the hungry and healing the sick. He was a dietetic and sanitary and social reformer. The righteousness He taught was doing right. He asked no love to God, which did not manifest itself in love to the neighbour.

And here is the Vicar of Tamworth really representing his Master and doing his work, and thereby setting an example to all other vicars, pastors, curates, overseers and caretakers of the bodies and souls of men.

"Life," says the reverend Vicar of Tamworth, in his parish magazine, and we hope in his pulpit as well, "would be made much happier, and morality much improved, if a little more attention were paid to health. Few know that temptations to drink, for instance, come from the atmosphere of an ill-ventilated sleeping room, which makes a man feel as if he couldn't go to work without his nip; whereas, had his room been ventilated (and you can have your room ventilated without an atom of draught), he might have got up without that furred tongue and heavy head. Few also know how much ill-temper and low spirits depend on the want of attention to simple rules of diet. There are causes of disease without our power of remedy, and it is to be hoped that our Municipal Council will soon look to some of these; but there are others completely within our control, and these I hope we shall learn to grapple with or avoid."

Good for the vicar of Tamworth! But he has done better even than this. He took the chair at the Town Hall at a course of admirable Lectures on Health given by Miss Fenwick Miller, who is one of the very prettiest women, and one of the most charming speakers of those who have given their talents and persuasive powers to sanitary reform, and took every opportunity to recommend and enforce her teachings.

Miss Fenwick Miller, who holds an important position, suitable alike to her sex and acquirements, in a London hospital, gave the people of Tamworth much sound instruction and excellent advice on air and food, cleanliness, and the care of infancy, her last lecture being on a subject of the utmost interest to most of the born, and all the unborn, millions of our race—"Bringing up a Baby." This was an altogether delightful lecture, and the Town Hall was crowded with all the matrons of Tamworth, and all the candidates for that high and sacred position. The *Tamworth Herald* says:—"A cordial vote of thanks was awarded to Miss Miller for her able and interesting lectures. They have been of a most enjoyable character, and ought not to fail in the object for which they are beneficently intended."

And we say that, though we differ from Miss Miller on one or two little matters, we are sure that she will always be interesting, and as the *Tamworth Herald* says, "enjoyable." But specially do we commend the good sense, the liberality, the wise and truly Christian charity of this model vicar, and hope that there may be many to follow his excellent example.

The Herald of Health Almanac, we are happy to say, is very popular. People order it by dozens and hundreds, some to sell it, some to give it away. Its *raison d'etre* is given in the preface, which says:—

"Many good reasons might be given for publishing a health almanac. Everybody wants an almanac, and also wants health. People look in the almanac for necessary and important information—what so important and necessary as that which relates to health? An almanac marks the changes of the seasons and the progress of time—we want health hints for summer and winter, and to know how to make our whole lives healthy and happy. An almanac is kept the year round and frequently consulted; just the place for good counsels for the preservation of health, and the cure of diseases which may occur at any moment. The Herald of Health Almanac is published to make this paper more widely known, and all the works on sanitary and social science advertised in its colnmns, to promote the Co-operative Sanitary Company and all its work for the health and well-being of man, and to teach concisely and effectively the laws of health, how disease may be prevented, and how it may be cured in simple, natural, harmless, inexpensive ways, which everybody may use in their own families and homes. What it only hints at, or gives in brief maxims and principles, will be found fully explained in the Herald of Health, and the books advertised in its pages. Price One Penny. It may save pounds to every one who reads it. It will save in the cost of food, and medicines, and fees. It will save loss of time, and pain, and anxiety in sickness, and sorrow for untimely death; save the great blessing of health, the 'riches' of 'a sound body'—the 'infinite wealth' of a vigorous and joyous life."

Helpful Words and Deeds.—One of the "distinguished vegetarians," whose portraits we gave in the February number, in a letter containing his investment in the Co-operative Sanitary Company, Limited, says:—

"I am deeply interested in the work in which you are engaged, and have been trying to spread a knowledge of your writings and doings. You deserve all the support the friends of suffering humanity can give to aid you in removing the great ignorance that abounds in this country of ours, as to the causes and prevention of diseases, as well as their cure."

When a good man backs up his good words with a good remittance, it is a good thing altogether.

THE EDUCATION OF WOMEN.

By Mrs. NICHOLS.

WOMAN holds the future of the human race. As she is loving, wise, and strong—in one word, good—she will be able to give wisdom, strength, and goodness to her children. We can only give to our children what we have. They are the offshoots or extensions of ourselves. The physical and moral evil that inheres in us must, in a greater or less degree, descend to our offspring. Life has the precious power of transmitting itself, and throwing off disease and death in a great degree, when it is fully in the ascendant. Still, evil is the inheritance of all; hence the need of education, of training. An unhealthy child, under good care and placed in favourable conditions, often gets more health, and lives longer, than a strong and healthy child nurtured in self-indulgence, or growing up neglected.

The education of woman is in a great measure the education of the race. What she has of love and truth, she infallibly transmits. What is most wanting for the race to-day is, that man should be fully aware of this fact; that he should know the influence of true womanhood on human destiny. If woman is developed as an individual human soul, and not a mere inane appendage, she is not only a treasure to her husband, a true mother to her children, or to the children of others, but she is the nation's wealth—the mother of true souls yet to be.

To consider woman as she is, in our present civilisation, may be our duty, though it is a sad one. She knows nothing, as a rule, of her own organisation, of her own diseases, or those of her children. She does not know how to keep herself, her husband, or her family in health. She is dependent on physicians, and too often she is the victim of regular or irregular ignorance and quackery, simply because of her own ignorance. It is considered improper and unworthy of her to know the laws of reproduction, the truths that when lived to by husband and wife, give to the mother painless birth and healthy children. The door of pain, disease, and death, that clings to woman from the cradle to the grave, is considered a remediless necessity—a mysterious Providence, somehow connected with the fall of man! The instinct of truth is not wholly lost, even in our dense ignorance.

"I sorrow shalt thou bring forth children." People see that this prophecy is being fulfilled all the time, but why, or wherefore, they do not know.

They do not know the laws that, when obeyed, give painless gestation and parturition, and healthy babes. Because of this ignorance, misery and mourning abound, for there is everywhere preventible disease and death. The world does not know—even the best educated do not know—why one-third, or one-half, of the children die before they have fairly entered upon life: or why, everywhere, women even of the most privileged class, are victims of ill health. "The curse causeless does not come." What is wanted for our day and generation is a knowledge of causes.

England is at once the best and the worst country in the world. The noblest examples of true wisdom and goodness, of true heroism, and generous love of humanity, are found everywhere in England. She gives for want, and for the relief of all human suffering as no other country in the world gives. In times of calamity the nation seems one great, kind heart. But where the light has become darkness, how great is that darkness. By a mistaken policy men create the evils they seek to relieve.

One of the darkest sins of England to-day is her contempt of work. The lower classes work, and are expected to spend their lives in labour for themselves and those above them; but the privileged classes are not, except in rare instances, taught or trained in such a manner as to be able to enter upon an industrious, useful, and healthy life when deprived of money, which is called the means of living. If a great banking house fails numbers are plunged into misery. They have lost their means of living—their money; they are not trained to useful work, and their friends, who still have money, would despise them if they should do anything menial.

If the servants leave a family where there are several grown daughters the house is plagued with a great plague, because the girls know nothing of domestic duties. They may be able to go through with gymnastic or calisthenic exercises, or to play the piano, or at croquet, but they cannot cook or do housemaid's work. If they marry, they do not know how to order their homes, or what their servants ought to do, or how they ought to do it. It is clear to me that every daughter in every home in England, who has health and a sound mind, ought to be taught how to perform domestic duties, how to get a simple meal, how to make her bed, and how to take care of her baby, if she should be so happy as to have one. There was a time when every English gentlewoman could order all the work of her house, and do it if there were need.

I do not wish to see England's daughters converted into mere cooks, where the table is made a snare, and men make a god of appetite—but breadmaking, the preserving of fruits, and the preparation of simple and beautiful meals, is an art as honourable as the art of the poet or the painter. In all education for girls, every needful domestic duty should be taught. I say needful, as much of the work of our civilisation is far from being necessary. The lives of women as wives, and as cooks, are worn out in providing for artificial wants which bring disease upon families

It is of the first importance for woman that she have so far a medical education as to know the causes of disease and the means of prevention and cure. Every mother or woman who has fair intelligence, what is called good common sense, may be her own physician, and may prevent and cure the diseases of childhood. The generations of weak and foolish women will always furnish sufficient employment for physicians, and wise women should enter the medical profession as freely as men. There is a delicacy, a decency in women being physicians for their own sex, that many people see clearly at the present time. A school of life, where women can be taught to be good wives, wise mothers, good nurses, or if they choose, physicians, whose qualifications shall equal or surpass those of men, is a great NECESSITY, one of the *greatest*—for the civilized world, and especially for the English-speaking world. The English-speaking people see the necessity for this education. Wants press upon woman's heart, and she knows our needs sooner than they become apparent to the intellect of man. The tender love of woman makes her aware of the evils about her. She is impressed with want and woe. She is always the first to see and feel the sorrows of others. Woman was "last at the cross and earliest at the tomb."

Thirty years ago I obeyed the impulse to study and qualify myself as a physician and a teacher of the laws of life. During the last quarter of a century many women have become physicians in the United States. I was the first woman scientifically educated there as a physician. The necessity is now being felt for the medical education of women in England. Already a few women of culture, taste, refinement, of true nobility of character, have been educated as physicians and surgeons, and already prejudice is melting away like dew before the sun.

It has been considered derogatory to the dignity of a lady to be a midwife, but now that ladies of high character and culture are engaging in the practice of obstetrics, we shall soon find that this work of necessity and mercy will no more disgrace a female than a male physician.

At the present time an institution is wanted for the best possible education of three classes of students. These classes must comprehend, first, girls whose parents wish them to be thoroughly educated, and at the same time that their health shall be a first consideration. That they shall study just so much as is for their best good intellectually and materially. That they shall learn what they have the greatest aptitude for, whether it be mathematics or music, languages, general or classical literature, or all combined.

The principles and practice of domestic duties, the laws of health, and the prevention of disease, should underlie all education for woman. These principles involve a necessity for the study of chemistry, natural history, philosophy, and physiology, and, indeed, more or less of the circle of human knowledge. And whatever a girl learns well, she has in her being. As a mother she gives the aptitude to learn whatever she herself knows. She therefore becomes the mother of apt children. This thorough education for girls will fit them to be good wives and mothers, or to be educators, or useful members of society, as the most expensive schools do not now fit them.

Every school should be a School of Life, teaching sanitary laws and preparing pupils for the duties of home and of society. We know well what schools *are*—what they *should be* is not yet so fully known.

In an institution where spiritual and material health are first cared for, the children are able to learn much more than where they are stimulated and forced forward, like plants in a hot bed. They may not learn as much in a few weeks, or months, but years will show rich fruitage, with continued and increased health and strength. Such a school may well comprehend infants in its first class. The younger children are often lost, by the bad air and confinement of the school room as it now is. Where children are crowded together, the breath and exhalations of each little one become a source of disease to all. In the ordinary crowded and unventilated school rooms, compulsory education is too often compulsory death.

The second class in the School of Life that I am contemplating will be for mature women who wish to be better qualified for all the duties of life, whether they may be wives and mothers, educators, nurses, useful companions and helpers in families, or able to do any portion of the world's work.

If the miserable eye service too often rendered by domestic servants could be replaced by intelligent help, there would be great improvement in families. There is something very beautiful in the true meaning of this sometimes ridiculed American word "help." I am very thankful that I was born and reared where servitude and slavery were equally unknown, but where help was the rule of living. In New England fifty years ago, the word servant, as applied to one of our own people, was unknown. Men helped one another to raise their buildings, to get in their crops, and to do all sorts of work. Women helped one another in domestic duties, being teachers, dressmakers, milliners, and so on, several hours in the day, and doing housework other portions of their time. In my youth we spun the yarn for our clothing, and the strongest wove it. In my family all kinds of work needful for sustenance and clothing were done. But the factories came and left me free to teach school, and to do artistic work, for which I was very grateful. With less manual labour I wrote poems and stories, and read abundantly. It never came into my thoughts that it was a dishonour to do washing, baking, or dairy work, when I studied Latin, Greek, French, philosophy, &c., in my leisure hours.

My sisters and I grew up amid all sorts of work, each doing what strength or aptitude best fitted us for. The girl who could do more and better work than her mates had more honour in the social circle. When a sister or cousin went to help a married sister or cousin, she never stipulated that she should do "nothing menial," but

she took the portion of the work that she could best perform.

When our country was plunged in civil war, and we escaped with little more than life and liberty, we found ourselves nearly penniless in a strange land. In London I took two small rooms with a reduced English lady, while my husband sought employment in Ireland. I put into my rooms what was absolutely needful, and here I wrote for our bread—my own and our daughter's—till my husband's return. We were our own servants for two years, our two pens keeping us in food, while books were growing under our hands, which have since been sold. We have both read our papers in some of the leading periodicals while I was serving our little home with my husband's assistance. We passed through severe struggles. I learned from the cold, when I had insufficient clothing, what neuralgic rheumatism is in England, and I have given flannel as a remedy to many a poor patient since. What would have been our lot if we had been too proud, or too ignorant to work?

Christ said, "My Father worketh hitherto, and I work." The glory of a country is an honest, healthy, and industrious people. Those who despise and evade work, and get their living by cheating are a nation's infamy. Useless women, who have contempt for work, become a means of demoralisation in marriage and out of it. Contempt of honest industry is a sin and a shame in any people, and in a Christian people it is a sin and shame of the deepest dye. The Founder of our Religion was the reputed son of a Carpenter. How many of his so-called disciples would consider it disgraceful to have a father, a brother, or a son bred to this delightful and time-honoured trade?

I now come to the third class in the school of life. Those who compose this class should be thoroughly educated as physicians and teachers. They should devote their lives to their profession, healing disease, and at the same time teaching the laws of health. Such women would live by their profession as men live. It is honourable to do good, and to give health to soul or body is especially honourable. Women can compete successfully with men as physicians. Before women were educated regularly in America, it became a question whether the regular faculty should consult with me, inasmuch as I had no diploma, none being then given to women. I have since signed many a diploma as Professor in a Medical Institute. I had recommendations from physicians of the highest character and position, and found always the best and highest most willing to consult with me. I remember one instance when I was called to a consultation with the venerable and highly-respected allopathic doctors. I gave my opinion and the facts on which it was founded. They saw that I was right, and the eldest took my hand and said with emotion, "My child, I shall be glad to meet you again." This was worth more to me than many bought diplomas.

Mean men sometimes treated me meanly; but I seldom came in contact with these. As a rule, I was treated with the most distinguished kindness and courtesy by the medical profession. They enabled me to study, to see dissections, to do all that was needful to become a physician and teacher; and they honoured and recommended me when I had obtained my education. True men are always the friends and protectors of women.

There is a class of women for whom I feel very deeply, for whom I would give anything or do anything, and make any sacrifice within the limits of right. I mean those women who have apostolic souls and no money. These would get a medical education, and teach and heal, and do all the good possible to them, if the hand of help could be held out to them to fit them for the work. As far as I have been able I have educated such in America and England. One of the most useful women I have ever known, is one whom I have educated during my last years in England. Her father had been a wealthy manufacturer and had failed. I saw her devotion and her wisdom. I foresaw the good she has since done, and I did all in my power for her, and she already has richly repaid me by what she has done for others. For such women I make an appeal here and now. I ask every man and every woman, who knows even a tithe of the blessing that comes with a knowledge of the laws of life and health, to help me to educate good and true women to work in this apostolate of health, even as I have worked. I have not many years more. I would live in others, and mostly would live in worthy women who will carry on my work when I have passed away. I ask help for a School of Life, that shall educate women for the highest and noblest duties. Especially I ask that those who are able should give me money to educate those women who are waiting with their hearts offered up to do the greatest good, but who have no means to qualify themselves for the work the world so much needs. What we have done, what we are still doing, is the security I offer to those who have money to give, that it will be worthily invested if given to this end. The School of Life that we pledge ourselves to found, contains the germs of all good for the nation and the race.

I ask help of all good men and women who understand the height and depth and breadth of the Health movement that we serve.

My husband, Dr. T. L. Nichols, and I are ready to offer all, and to do all in our power, to call nothing our own, but to lay all on the altar for human health and redemption. The last cannot fully come to man without the first. Health is a condition of a good life and true use on earth, and these are a preparation for happiness in heaven. For this School of Life we are ready to lecture, to explain, and elucidate the subject as fully as possible, to ask help of the people as earnestly as we have long asked it of God.

I by no means wish to shut out men from our School of Life, but I am primarily the mother and the sister-servant of woman. Let man help himself. My life is offered up to help woman. I would be the helper of the helpless. Woman is far more helpless than man. She is the crown and glory of man, and she is also his victim, a

mere appendage often, having no legal existence or rights. All my life I have been a worshipper of true womanhood. My soul has bowed ever before the true woman as a being a little lower than the angels, and nearer to God than man. The Emanuel God with us was born of a woman, "not of the will of man." To educate woman is to save the race. She is the source of life to her babes. She is their teacher and guide. The heart of a good woman is always right. It only needs to inform her intellect. Let her be fully instructed and she becomes a power in her home, a power in the State that all men must respect.

The holy art of woman's heart
Is guiding man above;
The sacred might of many a right
Lies hidden in her love.

She teaches truth to fervent youth,
Chaste love, not base desire;
The lightning spark along the dark
Shall set our age on fire;

And beacon lights on all our heights
Shall burn to guide as well;
We'll count the cost of loved and lost,
And conquer death and hell.

MARY S. G. NICHOLS.

Aldwyn Tower, Malvern,
August, 1875.

A HEART TO HEART TALK WITH FRIENDS.

BY MRS. NICHOLS.

As we have just crossed the threshold of the New Year, I wish to state simply to my friends, and to those who are friends of the dear Lord who loves little children, what I have the earnest wish and prayer to do while I remain a worker in this world.

To make birth pure—that is, healthy, whole, or holy, is the first wish, the deepest prayer of my heart. Good and great people, who have been born with the taint of diseased amativeness, have lost the use of a great part of their lives by early falling into the sin of impurity. They have thus sacrificed health and strength that might have been used to redeem and save very many. They have lost time in resisting temptation, and peace of mind by falling at times under the overmastering power of disease. The purely born child has a delightful inheritance,—a gift excelling all other natural gifts. Purity is life, power; the sense of being alive and well is a joy that cannot be expressed. How many are there whose lives are one long pain by no fault of their own. A child born of diseased amativeness, though entirely in legal right, has sin, sickness, and sorrow forced upon it from its first breath. To educate, and especially to educate women in all that relates to the science of pure and painless birth, and to the health of women and children, is our earnest prayer.

The living voice and the example of practice are imperatively needed to the great end of Sanitary Education. I use the word Sanitary in a more personal and comprehensive sense than its common application. All Sanitary Science that relates to birth and to the diseases of women and children, usually included in the term Pathology, because of our universal sickness, should be studied by women. They have a living interest in it all. Woman alone knows the suffering of her sex, because she is woman. Man can never know it. I have every reason for wishing to educate woman. Man can make his own way. All gates are open to him. They are only ajar for woman, even in this enlightened age. I would have men truly educated. The male and female are one in a true life. No woman can have her rights till her other half knows and respects them. Still woman is my first care. My apostolate is to woman. For her I would live, for her I would die,—for the future of our race for good or for evil is with her.

For some time past I have had offers of ladies who wish to educate themselves to be true helpers of others. They wish to understand the laws of health and disease, and they would gladly give themselves to this end. But they have only themselves to give—a very worthy gift, but they have no money, and I have only what I earn and what the few friends who have come to feel the importance of the subject have contributed. Christmas brought me a donation of £25 for the fund for the education of women in this school of life. The donor is a true friend of woman. He is a man of faith like that of Columbus, of whom the historian Bancroft said—"He started for the New World with a faith that would have created it if he had not found it." For this £25 I shall be able to educate a lady for six months, who will aid me in my work, so as to pay the remainder of the expense incurred on her behalf.

A beginning is made. The great wish of my heart, the deep prayer of my life, to educate women to be good wives, mothers, nurses, and physicians, will not fail of its accomplishment. A true want in England has only to be made known to be supplied. In my little book of experience, entitled, "A Woman's Work in Water Cure," and in Dr. Nichols' more voluminous works, the want of knowledge, and the dreadful consequences of that want, are clearly shown. One portion of my work has a claim on the public that is becoming more apparent every day. The sad effects of vaccination are all about us. I am constantly appealed to by those whose children are diseased by compulsory vaccination, and these appeals are becoming more numerous as the public becomes informed as to the beneficent effects of water cure in these cases of blood poisoning. Children after vaccination are afflicted with purulent eruptions sometimes over the whole surface of their little bodies. I have had them without a square inch of skin that was healthy. The parents of these children are mostly unable to pay anything for their care. Who will help me to wash them clean, to purify their blood, and relieve the innocent sufferers from disease that has been forced upon them by unwise, legal compulsion? Again, I want help for orphans of exceptional worth. I want to take these, or place them with honest and intelligent persons who have not been blessed with babes of their own. It may sound harsh to the kindly heart that I do not want to take ordinary orphans. There are

asylums, sisterhoods, convents, &c., for these. As I pick my patients, so I would choose my children. A patient who wishes to be cured for his or her own enjoyment of life, with no wish to do good with renovated health, cannot have me as physician, though they were rich as Crœsus and willing to give me fees in accordance with their wealth. I have not many years more in this world, and these I would spend to the greatest possible advantage. I would cure and teach, if I could, only such as would become apostles of health and holiness of life. I would teach the true connection between health and heaven, between sin and sickness, and misery here and hereafter. I would save people in this world and redeem our poor sick earth by their means. Men with true sanitary education will rebuild London, cleanse it from filth, annihilate its sinks of pollution, its slums and fever dens, and save thousands of human souls for time and eternity. The human race will redeem the earth, when, as a race, it is itself saved. How grand the thought, and how worthy of God and man that the earth and man may be redeemed. And where shall we begin except in the heart and mind of man. When the will of man and woman is offered as one to do the will of God, to be wise and good for this world as for another, then birth will be purified. Man will not live for present pleasure, but for health and holiness, to become wise unto salvation.

Whoso will help me in my work must know that, personally, I ask nothing. Who helps me, helps a work that goes right on. It will not die with me or with you, but will live after us a blessing and a joy, it may be, to more than we can number.

A few weeks since I received the following tender and true-hearted note from a lady of whom I had never heard. It was a great encouragement to me. It is so good to feel assured that persons whom we do not know sympathise in our work, pray for us, and perhaps are helping, when we are sad and dispirited:—

My dear Mrs. Nichols,—I feel great interest in your work for poor children, but am not able to give much myself, as my father's means are very limited; I have, therefore, collected a trifle from a few friends for you to make use of, which I send with great pleasure, wishing it was more. I have had some refusals; but one comfort is, that every one I have asked has had a HERALD for November.

Dr. Nichols' books are much valued by us. Mamma lends them to our friends. As far as medicines are concerned, we have taken nothing for the last five-and-twenty years but homœopathic remedies, and we are now trying to reform our diet a little according to Dr. Nichols' instructions. Praying that you may have much success in your work, believe me, dear Mrs. Nichols, yours very sincerely,

C. V.

Enclosed a P.O.O. for £3.

THE self-love that "takes and eats," that *will* have what is not ours, is *the fall of Man*. Self-love eats of the forbidden fruit, claims for self, regardless of the neighbor: and this is the condition of death.

RELIGION VERSUS CHARITY.

BY MRS. NICHOLS.

AM asked what sort of religious training I intend to give orphans entrusted to my care.

I reply that those children whom I shall place in families will get their moral training from the parents who adopt them. If the parents of an orphan who came into my hands had been religious people, other things being equal, I would place the child with those who were of the same form of faith.

The first question I shall always ask concerning those who wish to adopt a child is this: Have they an enlightened conscience, that will lead them to bring up a child in purity and health? I shall not ask how many prayers they say, or read, what forms they observe, or what opinions they may have about what some people call Theology; but I shall ask whether they eat and drink to the glory of God, or for their own self-indulgence? I shall ask whether their bodies are washed with pure water, and whether they consider cleanliness akin to Godliness?—I shall ask whether their hearts are filled with love to God and man?

I have travelled much; I have known people of almost every civilised nationality, and I have found holy souls in every sect and in every nation. This has not made me a sectarian, but it has made me believe that the Church of Christ is one, and that vital religion is the same wherever it is found. In all sects, and in those who belonged to none, I have found members of the Church universal.

Those persons who love God and little children, who have both wisdom and knowledge, who keep a conscience void of offence, who obey the physical laws because they are laws of God, and promote health and purity, who are not cruel, and who abet no cruelty toward man or beast from self-love and self-indulgence; those who believe in the dignity of labour, and who will work themselves and teach those committed to them to work—such are the true parents to whom I would commit the care of children.

To those who may be given to me, I shall teach my own faith. I believe in God the *Father* Almighty, I believe in serving Him by promoting the good of all. The world is perishing for lack of knowledge. I believe in teaching the truth that shall save us here, as a means of salvation hereafter. The divorce of religion from this life is the sin and sorrow of the Christian world. Men seek to be saved hereafter, and they allow this world to become a hell, while they are saying prayers, not as a means, but as an end, foolishly trusting that devotions will be accepted instead of duties.

To educate devoted men and women, and to train children from birth to an apostolate of health, in the sense of holiness, is our work—a work that may live after us. To maintain mere bodily health, to selfishly seek the prolongation of a worthless life, is to me very contemptible. It is as mean as to seek to go to heaven in the next world, while we live in a selfish and sensual luxury in this, paying doctors to cure the sickness caused by our sins, and paying the clergy to see to the saving of our souls.

Beneath this selfish life of custom, a better heart has begun to beat, and men and women are beginning to deny themselves, and they begin in the right place. They feel that the table is a snare and a stumbling-block, that by their luxuries they have made bad blood, and starved their fellow-creatures.

Already many have seen in their own sad experience, that "when lust is conceived, it bringeth forth

sin, and sin when it is finished, bringeth forth death." They look beyond the death of the body, and they feel that the soul is deathless; and they see that self-indulgence here is a miserable preparation for a hereafter.

Do we know what life is? "I am the Resurrection and the Life." To have soul and body inspired and permeated, and altogether living from the Divine, the spirit which was in Him who said, "I am the Resurrection and the Life," this makes man a living soul. Sickness and pain are the beginnings of death; they are the results of disobedience to the Divine law. Self-love in self-indulgence cuts us off from the sustaining love of God.

As a ligature placed upon a limb brings first pain and then death, so does an evil self-love bring pain and death upon the soul. The love of our self, excluding the love of our neighbour, and isolating us, as by a ligature from him—this is death by sin.

Mr. Ruskin has well said: "All the diseases of the mind leading to fatalest ruin, consist primarily in this isolation. They are the concentration of man upon himself; whether his heavenly interests, or his worldly interests, matters not; it is the being *his own* interests, which makes the regard of them so mortal."

To live for ourselves alone, either for this world, or another, is mortal sin. Whether we labour and pray for wealth, love, and joy for ourselves alone in this world, or whether we pray for heaven in the same selfish spirit, matters not. Both prayers are deadly sins. Labour is prayer. To pray and labour for the best good of all our fellow-creatures, to love our neighbour as we love ourselves, is the only way to secure our own good. We must seek to save our fellows, if we would be ourselves saved. The conditions of typhus, or cholera, must be removed from all, if we would save ourselves from these diseases, and so of every evil, moral and physical. Our race is one. "We are all members one of another." Hate is unwholesome—"He who hateth his brother is a murderer." We all know how we suffer from even a slight estrangement from those we love. We may thus "know by a little, what a good deal means." If we could form one family of a few hundred persons, enough to be self-sustaining, whose interests should be one, as a mother's are one with her babe, we should begin to see what life and health might be in true conditions. We know the strength of an army making long marches, keeping as it were one step to music. Think you, that any one of these men, isolate, however strong he might be, could bear up under the exertion that the whole easily bear? Co-operative companies may do much material good, but there is an interior and spiritual harmony that is born of self-sacrifice for the good of all, that is higher and greater. When all give up for all, then all are served, if the numbers are sufficient to be self-sustaining.

To found a family where all will work for all, under the headship of a father and mother who are one, or a father, or mother alone, who shall be one with the Divine Love, this seems to me the highest and holiest co-operation.

To live and to teach the great truth that God is our Father, and that all we are brethren, that we should live in mutual service, devoting all life to the greatest good: this is my religion; in this faith I would train children committed to my care.

No one will ask me what particular form of Christian faith I profess, when some loved one is ill, whom they believe I can save by my skill, and my loving care.

I am allowed to wash the poor children clean of blood-poisoning by vaccination, at my own expense, without being asked whether I am Catholic or Protestant.

I ask no one's help, who cannot fully trust me to do good with their money, as our Heavenly Father does us good, without respect of persons. "In every nation he that feareth God and worketh righteousness is accepted of Him."

TO THOSE WHO LOVE CHILDREN.

I FEEL sure that all who read Mrs. Nichols' article on "Education" in the HERALD of September last, her "plain words" in the November issue, and her just published "Heart to Heart talk with Friends," must deeply sympathise with and long to help her. She has a heart full of love and sympathy, is our common friend, even as a dear mother or sister. We, who know something of her past life-work and present efforts, cannot help admiring and loving her. How natural it is that now, as she sees the shadows of the lengthening day fall round her, life's "eventide," she is even more ardent and zealous. You and I may know something of this one day. Let us now bring the sunbeams to her feet. Because we love her, we must long to help her. I appeal, on her behalf, to my sister readers, especially to you *young ladies*.

You who are rich and, in worldly pleasures (so-called), "happy," come and find yet brighter happiness, treasures that shall not corrupt. I want you *all* to work, whether of the more favoured "upper," the great middle, or the toilsome working class. Or whether you are suffering, sad, or bereaved: in loving work for others your own tears shall be stayed. We may all prove how sweet and grand a thing this life may become, even for you the very poor and afflicted here. Surely *you* must feel for the poor orphans whom Mrs. Nichols could save. Is it not a noble work to take these much sinned against, but still innocent little ones, from their unfortunate surroundings, give them pure influences, wise training, home affections? And again, to educate women to be "good wives, nurses, physicians." Even amongst the higher classes, women are deplorably ignorant of the laws that govern their being, of sanitary science, and even of domestic economy and management. They are frightened and helpless when severe illness lays some loved one low, or when unforeseen events make them dependent on their own exertions. How many have their better natures smothered beneath the habits, customs, and duties of a fashionable, frivolous society? And, still worse, through their lack of self-knowledge and true self-respect, added to the ignorance or selfishness of men, how often are their most sacred rights ignored, their health both physically and spiritually deteriorated, the evil and suffering descending to their children? We

do, indeed, need an apostolate for women. Thank God, that good men and women everywhere begin to realise, and to work for this need, and that now we have so able an advocate in the earnestness and love that says is of woman—"For her I would live, for her I would die; for the future of our race, for good or for evil, is with her."

I would speak more of this hereafter. It is the mission for children that I plead for now. There are very many charitable institutions, orphan asylums, children's homes, &c., scattered throughout our land, all of which are effecting a truly good work. But whilst we would rather add to than detract from their usefulness, I think we can claim for that of Mrs. Nichols an exceptional character. She aims to treat the children *hygienically*, bring them to a thorough knowledge of sanitary laws, a knowledge too little taught in our schools or homes. Thereby, those whom she aids will have a fairer chance, not only of attaining truest health and happiness themselves, but of transmitting these blessings to others; not only through their own posterity, but through their influence, example, and teaching. Many of them will be specially trained to teach others. We can see at a glance what a full, far-reaching work this is.

And then, as you are aware, Mrs. Nichols would place many a little one in childless homes. Here, too, is a means of uplifting the hearts of thousands.

Many a childless lady now lavishes her affections on some pet dog, cat, or bird. Pretty innocent creatures! we may well love and care for them. But is it not a pity that so *much* attention should be bestowed on these when all around us the outcast or neglected infants are left to die, or to live on in sin worse than death? "It is not the will of your Father who is in heaven that one of these little ones should perish." Is it not more worthy of immortal beings—Christ's people—to feed and rightly train these little ones? How much greater the good and the reward!

Happily this is not a sectarian or party work. It has little to do with theology or the creeds. It is the simple act of obedience—"Love one another;" "Do unto others as you would that others should do unto you;" "Feed my lambs."

This journal is read by all classes and by varying sects. But we can all unite here. Mrs. Nichols wishes to place the children in well ordered Christian homes—irrespective of sects—where they will be trained morally and hygienically. See, then, how broad and sure our foundation is. Without fear we can join hand in hand and ask help of all. No kind heart can resist; all wise minds must acknowledge the practical utility of our aims.

I was very thankful for the first fruits collected by the young lady whose good kind letter to Mrs. Nichols is given us. Her zeal should shame us, who, perchance, have all along been meaning to help in some way—some day! Her success suggests a plan whereby we may eventually realise large sums. There only wants the *will*. Let us at once resolve to give according to our means—much or little, and then collect from our friends. For this end we should have collecting books, or cards, where the names of donors may be stated. Cards may be best to begin. If we can get only single contributions that will be well. But we may do still better by dropping these in a collecting box. Let a pretty box be placed conspicuously in every home. With our cards we may secure annual subscribers, and these we should call on quarterly.

This mode of collecting is already most successfully used by friends of "The Children's Home" in London. I am acquainted with a dear young lady, who, through annual subscriptions collected quarterly, obtains about £15 every year! Pure love "enriches the heart of the giver," and has subtle power to influence others in ways unseen.

I am full of gladness anticipating the good we may effect. I think every reader of the HERALD will help in some way. I know that my sisters—especially my younger sisters—are ready to become collectors. Please send *your* contributions at once to Mrs. Nichols. And will you oblige me by kindly placing this number of the HERALD in the hands of non-subscribers. Let us try to win many collectors. There are many ways of doing this in home gatherings, in society, during your visits, &c.

Some of you can doubtless give further suggestions; if so, please don't let the thought slip, but send them on to the HERALD OF HEALTH. And let none of us wait for to-morrow. The future is so uncertain; begin *now*.

Only let it be said of each one of us, "She hath done what she could." However poor, we can think of the value of the widow's mite. However rich, remember that in very truth, "He that giveth to the poor lendeth to the Lord." Angel friends will rejoice in our efforts. Jesus Himself be near to aid and bless us. ELLEN J. PEARCE.

P.S.—Mrs. Nichols will send her "Heart to Heart Talk with Friends," printed on a slip, for distribution. She will also send collecting cards to those who desire them. E. J. P.

THE FORCE OF LIFE.—Mental and moral power appertains not to matter, but to life. No matter, and no combination of matter, can feel, or think, or love. Love is life—a vital emotion. Take from the highest organisation we know—the human body—its life, and we have a mass of inert matter which quickly passes into decay. The force that presided over its formation and growth—the force and intelligence which placed every atom, shaped every organ, and presided over every function is there no longer. The matter, left to itself, yields to the ordinary material forces which life had held at bay, and the wonderful human body speedily becomes air and ashes. Life in its full power, presiding over the material organism, is health. Enfeebled life, struggling painfully against the tendencies of every material organism to change and decay, is disease. The defeat and banishment of life from the body is death.—*Dr. Nichols' Human Physiology.*

HEALTH OF CHILDREN.

"There is a common belief that children must all 'go through' measles, whooping-cough, and other 'childish complaints,' just as dogs must go through the distemper. The opinion is a very ignorant and mistaken one, and is often both an excuse for, and a cause of, much neglect. It was strongly combatted by Dr. Saunders, medical officer of the Middlesex and Hertfordshire District, in a paper which he read lately at the Herts Medical Society."

THE above is from that time-honoured weekly, the *Family Herald*. We copy it to show that the world is really growing wiser. Such a paragraph would be the commonest commonplace in the HERALD OF HEALTH. We hail this as a happy sign of progress in the *Family Herald*, from which we clip the following excellent paragraphs:

"Sound health rules: Use good, simple food. Take plenty of sleep. Do your work in the sunshine that God gives, and not in artificial light. Use relaxation.

"There is no school like God's large school-house. And there are no school-days to be compared to the threescore and ten years in which we move to and fro about this school-house of the Father, with our books not slung over our shoulder, but carried in the heart.

"As a matter of practical philosophy, hardly anything can be more essential to the young than that they should set out in life with a correct understanding of how largely they hold their fortunes in their own keeping. Be courageous, but prudent; enterprising, but painstaking; industrious and persevering; always remembering that the proverb, though old, is still true, and will never wear out: Providence helps those who help themselves.

"KNOWLEDGE.—Knowledge, like grief or joy, has its degrees. A child can learn the Ten Commandments, and can obey them too, but it has no information on the subject compared with any good man in the middle life who has seen the drama of mankind, with its daily ruin of those who have cast themselves against the true and the good. You have only one life to live here. The path is not long, and you cannot go over it a second time. Therefore it is necessary to be earnest and sincere—earnest, lest lessons be unread and duties be undone; sincere, lest some false pursuit, some hypocrite's hope, hover before you, an *ignis fatuus*, instead of an eternal star.

"HARDENING CHILDREN.—The delusion, once so popular, that scant clothing of children, reaching in extreme cases almost semi-nudity, caused them to become "hardy," is at last disappearing from amongst the educated classes; and the truth is now recognised that it was only the exceptionally strong children who survived the treatment, while the weaker ones died off or fell into chronic ill-health. Among the less educated classes many grave errors still exist, and will probably continue to exist until the laws and precepts of sanitary science become more generally diffused and obeyed. To keep the legs and arms and a great portion of the breast exposed is a terrible ordeal for children to pass through as a sacrifice to the Moloch of fashion.—*Sanitary Record.*

"SHOULD NOT MOTHERS BE MORE MOTHERLY?—We are often asked the question, 'Do you think it is right to correspond with a gentleman without my parents' consent?' Human nature will be human nature always. Girls will fall in love—or at least form predilections—earlier than they ought, and their affections will not always take the bent their parents would prefer. But what cannot be wholly prevented—what it is idle to prohibit—might be regulated, restrained, guided, and controlled far more than it is. And the great reason is that mothers do not cultivate terms of sufficient intimacy with their daughters. Young girls are afraid to confide all their thoughts and all their acts freely to their mothers. They have too much reason to fear that if they do so, instead of sympathy and kindness, they will meet with rebukes and reproaches. A mother cannot make a greater mistake than to let her daughters grow up in fear and awe of her. She should study always to win the confidence and love of her children, to make them feel towards her as towards a fond sister, rather than to regard her as a stern ruler. In this way many a secret correspondence and many a sly flirtation, not conducive to the daughter's happiness and welfare, which now occur, would be avoided."

A DOCTOR'S STORY.

By W. M. CARLETON.

MRS. ROGERS lay ill in bed,
Bandaged and blistered from foot to head.
Bandaged and blistered from head to toe,
Mrs. Rogers was very low.
Bottle and saucer, spoon and cup,
On the table stood bravely up;
Physic of high and low degree—
Calomel, catnip, boneset tea;—
Everything a body could bear,
Excepting light and water and air.

I opened the blinds: the day was bright,
And God gave Mrs. Rogers some light.
I opened the window: the day was fair,
And God gave Mrs. Rogers some air.
Bottles and blisters, powders and pills,
Catnip, boneset, syrups and squills,
Drugs and medicines, high and low,
I threw them as far as I could throw.
"What are you doing?" my patient cried.
"Frightening Death," I coolly replied.
"You are crazy," a visitor said;
I flung a bottle at her head.

Deacon Rogers he came to me;
"Wife is a-comin' round," said he.
"I really think she will worry through;
She scolds me just as she used to do.
All the people have poohed and slurred;
All the neighbours have had their word.
'"Twas better to perish,' some of 'em say,
'Than be cured in such an irregular way.'"

"Your wife," said I, "had God's good care,
And His remedies—light and water and air;
All the doctors, without a doubt,
Couldn't have cured Mrs. Rogers without."

The Deacon smiled and bowed his head;
"Then your bill is nothing," he said.
"God's be the glory, as you say.
God bless you, Doctor! Good day! good day!"
If ever I doctor that woman again,
I'll give her medicines made by men.

—*Maine Farmer.*

TO MY FRIENDS.

By Mrs. Nichols.

A lady who sympathises in my work has sent two pounds, not allowing me even her initials. Another lady gave ten pounds, saying I might put *Bank* spelt backward, as a token of her individuality, but I only put *grateful thanks*, with the letters in their proper order. On the same day I received two pounds from a princess, and 2s. 6d. from the wife of a bootmaker. The tender and true-hearted sympathy of two women so differently placed in life affected me very deeply. May the blessing of Heaven rest on them equally. A lady who loves little children gave two pounds, and one who sent no name, but assured me of her sympathy, sent one pound. A domestic servant sent me one pound, and also manifested such intelligent sympathy with our work generally, that I feel doubly indebted to her. Daily I find new charities—sometimes only medical aid is needed, but often money is imperatively required. I give a case in point. Three years ago my laundress, one of the most excellent and devotedly pious women I have ever known, came to me for her children. One of them was covered with scab, from vaccination, several were ill, and all had been badly born. I succeeded in doing the little ones a great deal of good, and at last the mother confided in me for herself. She was fearfully ill, having borne eleven children rapidly, and through all supported herself and a drunken husband and her brood of little ones, by her own industry. I could only hope to ameliorate her suffering. This I did by the use of warm baths, gifts of warm clothing, proper food and homœopathic remedies. In an evil hour recently, she was persuaded to go into an hospital, the surgeon of which did not know how weak and ailing she was. He thought an operation would help her. I opposed this with all my efforts. I warned and tried to dissuade, but the poor woman was over-persuaded. The operation was performed, and she died in a few hours afterwards. She leaves three little girls, the youngest 21 months old, all utterly destitute, except that they are clothed by my help, and the clever and kindly hands of their now lost bread-winner. The father, an inoffensive sensible man naturally, is a well-nigh hopeless and helpless drunkard. With the donations I have now, about seventeen pounds, with better health than I have had in my whole life, with more faith and trust than I have ever had, I feel justified in assuming the care of the baby. I shall do what I can to place the others properly. They have all, I am sure, good, honest, tender hearts from their mother, and the instinct to serve. The day before the mother died, the little ones went to see her at the hospital. Her last words to them were—"Go home now, my dear children, and pray for your poor mother." A kind neighbour, who opened the door a while after to see how they were, found four little children—the three girls and a boy—kneeling in prayer for the dying mother. The wretched father has no fault that I know of, except that he is lost, lost through drink, England's special curse. I would almost as soon drink blood as beer, in the presence of the degradation, crime, and misery everywhere caused by beer. My friends, and those who sympathise with my work, will see that my responsibilities increase. I am thankful that my professional earnings also increase. I am able to do a little more, and a little more good, as the weeks go by.

More deeply than all, I feel the ignorance of woman of what most concerns her, and the race which she must continue. From highest to lowest, the best educated and the worst, all are alike ignorant of their own organisation, all are alike dependent on physicians and surgeons. The best men often use the worst means, and women are the victims. What my poor humble friend, the laundress, suffered was like being crucified, and I could not save her, because she knew nothing of herself. The deepest prayer of my heart for the world around me is, that I may be allowed to educate women in a true knowledge of themselves, and of the responsibility that is theirs, as mothers of the human race. The subject is too deep and too broad for this paper. A school of life and long study can alone do justice to it. The first help that is needed is, that the hearts and minds of men and women be interested—that they learn enough to see *why* woman and children are so fearfully diseased; *why* mothers mourn for their lost little ones, and cannot be comforted; *why* perfectly natural and usual functions, such as gestation and parturition, are fraught with suffering and danger, and are at times fatal. When men and women begin to see the reasons for all this, then they will learn more, and they will help others to learn.

It was a lady of education and position who persuaded my poor friend to undergo the operation that resulted in death within twenty-four hours, that left a family of little ones motherless, with no resource but in the kindness of the kindest people in the world, as I am sure the English are. But oh, this dense ignorance in the best classes, and amongst the best educated women, is heart-breaking. Still there is but one way, to keep on spreading light and truth, and trying to save children, of whom it was said, "Of such is the kingdom of heaven." If they are not helped and trained rightly, they come to belong to quite another kingdom. As we do for them, so shall it be done unto us.

Mrs. Nichols begs to acknowledge, with heartfelt gratitude, a donation of £10 from O. F., to help her to help children. These appeal to her sympathy in many ways. The sick, and especially those whose blood has been poisoned with the virus of vaccination, appeal to her for aid. Frequently the parents are poor, but intelligent. They are willing, but not able, to serve their children. Often their blood is so poisoned that the whole surface of the body is covered with a foul eruption exuding pus. One of these had but one spot of healthy skin not as large as a shilling. She came to have a fair skin, with not one sore spot.

Another class appeals for aid. They are infants who are outlawed from birth—orphans, who have neither parents nor claim on society. The illegitimate child has the strongest claim to charity, in its great need. Often good men and women look upon such with distrust and aversion. It is said—"Their

parents were bad, and they will be bad: it is in their blood." This depends on their training. They are sometimes the children of a great impulse—a passion that is called love—and they inherit great force of character. Men of talents and genius often go fearfully wrong, and women of great love fall with them: their act is natural mutual. We do not wish to excuse sin; but we would plead for the child born of such parents, and we would say to those who would cast them out—They have great capacity for good or for evil. Their future for weal or woe depends on their training. If they are brought up in obedience to sanitary law, the morbid, passionate life that has its end in sin and death is cooled, and the calm of health succeeds the fever of disease. The child is saved. Its great force is made a blessing instead of a curse.

Mrs. Nichols is convinced from experience that the best we can do for these waifs and strays, is to place them in homes that are not blest by legitimate children, where the husband and wife are intelligent, and know the advantage of sanitary training, who are Christians indeed, no matter what their name, and who join their religion to every act of their life. The hearts of many are turned away from these children, because they dread their evil influence when they shall be grown to mature age. "As is the father or mother, so is the son and daughter." This is the voice of prudence, born of experience. Sanitary training, joined with true Christian instruction, changes all this. Therefore we plead for these children as for our own life, that they may be trained to be a blessing to society, instead of a curse. "Whoso the heart of man casts out, straightway the heart of God takes in." May this prove true. May those who are most Godlike take hold on these infant souls, who are most outcast!

Through Mrs. Nichols' practice as a physician, through the *Herald of Health*, through the large sympathy awakened by Dr. Nichols' books, a way is opened to place and save infants of exceptional birth and character.

Mrs. Nichols would inquire as carefully into the ante-natal history of children whom she seeks to save as the buyer inquires the character of the foal for which he is willing to give perhaps more than a thousand pounds. Which is worth the most—a well trained man or woman, with a great ability and devotion to do good, and to atone, if possible, for sinful parents, or a horse that may win the Derby, and make many rogues and gamblers?

Money is needed to cure sick children, to place and save those who may become a power for great good, or for great evil.

Who has the heart to give ever so little, or ever so much?

A LADY gives a guinea for the children, and says, "I have the most intense sympathy for your work, which goes to the root of evils. Ordinary charity is lopping off branches, and until we do go to the root and teach people to have a better birth and a better training for children, we do but little good."

ANOTHER lady of noble birth and nobler mind and heart, sends a guinea for the children, regretting that it is not more; but the many claims upon her makes a larger gift at present impossible.

A GENTLEMAN gives five pounds. He has before rendered most valuable assistance to our work. His mind is so clear and his heart so kind that his approval is a sustaining power, even if he gave no money.

A LADY, who feels deeply the sickness and misery caused by vaccination, gives ten pounds for the cure of the blood-poisoned innocents. For this class of poor children Mrs. Nichols has for years done her best, without other reward than the consciousness of having relieved suffering—of having done what she could to lighten the burdens of the sick poor.

WE give below the letter of another friend whose approval and money are of great value:—

My dear Madam,—In the September number of the HERALD OF HEALTH I read an article from your pen on the Education of Women, descriptive of what "woman" will become when educated in a School of Life such as you there foreshadow. The proposition is so eminently practical, and the entire article so full of high-souled sentiment for our race and noble devotion to your sex, that I am, so to speak, somewhat spell-bound in admiration of its language, in its urgent and noble appeal for those women who have apostolic souls but no money. I am not a wealthy man—far from it,—hardly enough, in my position, to keep the wolf from the door; but your touching appeal awakens in my breast a long felt interest in that most vital of subjects—the true education and consequent elevation of woman; to effect and lay the foundation of such a School appears to be your holy mission. Heaven speed you. In forwarding you £25 as a donation, to be used as you think fit, I do it with feelings of pleasure that I have not felt for many a day; richer fruitage I hope will follow when the HERALD becomes more widely circulated. I write this on the eve of the old year, wishing success to your Journal of Health and its many noble projects, with a deep and growing conviction that the year 1876 will be a bright page in the history of social advancement. I for one do not intend to lose sight of the ideal subject; in the meantime I commend the article in question to all those good men and women who have the means and will to help in the promulgation of Nature's laws of health, and thus assist to vindicate its ways to man. "Let us render unto Cæsar the things which are Cæsar's, and unto God the things which are God's," his children will then be somewhat nearer their heritage, and goodwill, peace, and plenty yet reign on earth.

E. V. A.

A WISE MOTHER.—Sixteen years ago Madame Sarti gave Physiological Lectures in New York to ladies. One day there came to her room a mother with twin boys, ten years old. She asked Madame Sarti to show to the children the wax model of the female body, with which she lectured, and to give to them her usual full description and explanation of every organ and its use. The womb was represented in the seventh month of pregnancy with twins. When Madame Sarti reached this she was about to pass it without mention; "Stop," said the mother, "that is precisely what I most wish my little ones to see." Then as the children looked with earnest wonder on the two tiny bodies, locked tightly in each other's embrace, she said, "My darlings, you know I have often told you how for nine long months you lay close together in that wonderful little room which is made in the mother's body. Now you can see just how it was. See how much mamma must love you, and how dreadful it would be if you did not love each other." When Madame Sarti told us this story, the tears stood in her eyes, and she said in her broken English, "Oh, I did like to bless that woman! And what men will she make those boys to be."—*New York Independent.*

ANSWERS TO MEDICAL INQUIRIES.

By Mrs. Nichols.

Persons writing for medical advice who cannot send a fee, should send stamped and directed envelope.

Names of places and signatures to letters are often so difficult to make out, that we are obliged to cut them off, and gum them on the envelope.

Our fee for written or personal consultation is One Guinea. Surgical examination an additional Guinea. Subsequent letters or consultations, in London or Malvern, 5s.

Visits to patients in Malvern after consultation, half a Guinea. London visits, One Guinea.

The poor will be served to the best of our ability whether they give something or nothing.

All should give what they can afford, for the sake of those who really can afford nothing.

SCARLATINA AND MEASLES.

"S. N." writes of scarlatina and measles:—

"Is it safe to put a patient in wet sheet pack when the redness of the first and the little specks of the last have not disappeared?"

My dear madam, it is the one thing needful. I know not how many cases of suppressed measles I have brought to the surface by wet sheet packing, and have thus saved the patient's life. In all cases where there is great heat, which is fever, the patient should be enveloped in a wet sheet, and well packed with blankets. In about ten minutes the patient will be in a sound sleep, even when a week has been passed without sleep. In about an hour the sheet dries and the patient writhes to get out of pack. Then give a sponge bath of cold water and let there be quiet rest, till fever again calls for the wet sheet. The effect of the wet linen upon the skin is marvellous. Where the breathing has been difficult from congestion and sore throat in scarlatina, or in the troublesome cough of measles, the free action of the lungs is restored or promoted in a few minutes. With children temperately reared, who have baths and little or no flesh meat, the fever and also measles may be substantially cured by one pack. Children who have lived luxuriously, and have had rich cake and pastry and a large allowance of flesh meat, often die of scarlatina or measles, or if they live they are very sickly afterward. Sometimes they are deaf, or they have sore eyes, or suppurating glands. If such children are wisely treated with water cure, they have the best chance for life, and for health afterward, that they can have.

The packs and cold baths should be suspended as soon as the fever is subdued. Tepid water for bath, dry clean clothing and warmth should be used, till the irritability of the skin passes, then cool the water again and soon use it cold.

The treatment for scarlatina and measles is identical. My charwoman lost one child from scarlatina under the parish doctor. She then came to me. I gave her a half ounce bottle of 30th dilution of belladonna, and told her to put three drops in a pail of water. I knew she would be afraid to use water without medicine. I instructed her how to proceed, and one of our students looked after her a little. She cured her other children and then the children of a neighbour's family. The belladonna had the credit of the cures. I do not know how much it helped, but I have done the same cures without it as with it. The disinfecting with Condy's, or any other good disinfectant, is very important. All soiled clothing, and all water used for bathing should be disinfected. As chlorallum does not stain, I have used it for clothing, though sinking the clothes in water destroys the infection. Persons who live healthily are not in the same danger of contagion as those are who live in the ordinary manner.

"N.B." asks if Mackintosh is a good covering for wet bandages?

We have said substantially elsewhere, and now say again, that the exclusion of air from the skin is always harmful, often fatal. There are two bad results from impervious covering—all effete and, therefore, hurtful matter that is passing off from the system continually is held upon the skin. It inoculates it, so to speak, with its own badness. Also the death of portions of skin is the result of a covering impervious to the atmosphere. The air is necessary to the vitality of the skin, as it is to that of the lungs. Death results as surely, though not as quickly, when the skin is wholly excluded from air as when the lungs are.

"N.B." also asks—Is salt hurtful?

The excessive use of salt causes scurvy, salt rheum, irritation, and inflammation of the renal system; and other disorders too numerous to mention are caused, or aggravated, by salt. Many persons suppose that life cannot be sustained without salt. This is a mistake, as far as adding salt to our food is concerned. Salt is found in combination with our food. One who has not taken salt comes soon to find an egg quite salt enough for his taste. I once had a patient who was afflicted with salt rheum. The skin was covered with white scales, and it cracked and bled in a very distressing manner. I said—Take a daily bath, and entirely disuse salt. This implied living on bread, fruits, and vegetables. In three months her salt rheum was cured. I have had patients with general renal irritations, and also inflammation of the bladder and urethra, from the excessive use of salt, which was cured by its disuse. It provokes thirst, and many a drunkard has been made by eating salt, and a few cured by disusing it.

A correspondent asks the cause of palpitation of the heart?

Simply want of vital energy. The deficiency of tone in the nerves may have many causes. Too much food and drink—if the drink be tea, coffee, wine, beer, or spirits; too much labour, anxiety, and care, or too much dissipation. This last means whatever wastes our vital powers, but the word is usually applied to the exhaustion of life by means of what are called pleasures—such as eating and drinking to excess, late hours, the theatre, the ball room, and those illegal evils that by common consent we shun to mention. But these are exhausting ways of life against which no law has been passed. Our table at home may be made a snare, marriage may be a veil for sin, speculation may be as exciting and exhausting as gaining, and our habits may be false and diseasing, with no loss of reputation or social position. Recently a clergyman called on me. By some accident his clothing was redolent of tobacco smoke. I think he did not expect to see a lady on this particular afternoon. As the light fell on his face I saw by the hue of the blood that he had heart disease. I said, "I wish you would take into your prayers the habit of taking tobacco. It is very harmful, and besides, it makes you a nuisance." I said the last "to *point* the moral." He told me that a physician ordered smoking for a weak throat, and I added, "Would he have ordered anything else that he thought you were fond of—ardent spirits or high living?" &c. I told him that his heart was affected, and he said it was hereditary, and had troubled him a good deal. Finally, he said, "You seem to

have come as a sort of external conscience to me." And then he went on to speak of his health—of his desire to do the most good possible, and of his having lately thought of giving up tobacco. He seemed the very man to do this when convinced of its being an evil, and therefore I set myself to teach him, and I told him that I should not let him alone, but follow my first impertinence by farther efforts for his conversion.

I have seen the habit of taking tobacco, especially snuff, produce fearful palpitation of the heart. It is difficult to leave taking any drug that remains in the system, as tobacco, opium, &c. The nerves lie prone under the burden of the poison, and of waste matter that has been kept in the system, by want of vital energy induced by the drug. The nerves are first stimulated and then exhausted by it. Tea and coffee have the same effect. They first stimulate, then weaken. The stimulating effect of these poisonous substances is the effort of the nerves to reject and throw off what is harmful. The instinct is to rise against it. The exhaustion that follows is relieved by again taking the poison, and again stimulating the nerves to reject the evil thing. Any person who is in the habit of taking tea or coffee is rendered unfit for thought or work by being deprived even for one day of the usual stimulus, and generally there is pain in the head and great nervous depression, when the tea or coffee is abandoned. This lasts a longer or shorter time according to the quantity that has been taken. Generally a week is little time enough to recover the tone of the nerves, even with the aid of packs, or hot-air baths, and plenty of cold water. An inveterate tea drinker has what may be termed mania, a [tea] potu, when leaving "the cup that cheers, but not inebriates." If any devotee of the tea-pot doubts my word, let him or her resolutely only drink water for a day or two, and my truth will be vindicated. The craving for more, equally attend tea, coffee, tobacco, and opium. All affect the nerves, and through these the heart and the circulation. Whoever has palpitation should be convinced that there is some evil act that causes it—some dissipation or other. It may be at the table, in food or drink; it may be labour, care, or sin; but there is a reason for the wrong—"The curse causeless does not come." Whatever the cause, get quit of it if you can, and strengthen yourself by right doing. To all persons who want directions for daily life, and yet do not want to consult a physician, we will send our printed sheet of general directions for patients. We have carefully prepared and printed these directions, to answer the many questions that are daily coming to us, respecting the diet and regimen that are most conducive to health. Letters for directions, or special medical advice, should be directed to Aldwyn Tower, Malvern; and business letters should be directed to 39 Museum Street, or 429 Oxford Street, London.

A Brave Young Girl.—The following notes of treatment are from a young girl, who asked my advice a year ago for a scrofulous affection of the skin, characterised by dry, white scurf. In old times it would have been termed leprosy. The girl was in very poor health generally, and the scurf was a cause of great suffering and mortification. Her own simple account of her progress is quite cheering. The suffering she had, after bringing her nephew through the measles, was the result of a cold no doubt, but also she had symptoms caused by inhaling the poison of the child's disorder. I wrote her to continue the hot-air baths, bandages, &c., and have no doubt of the good result of her treatment, as I have not heard again from her. I have never seen her but once. She is a simple-hearted, sewing girl, with little school learning. Still she is a brave, wise girl—and she will in time cure her own disease, and do much good to others.

This correspondent writes:—It is a very long time since I have written to you, but I often think of you as a very dear friend. I am thankful to be able to inform you that I have brought one of my little nephews safely through the measles: poor little dear, he had it heavy. I gave him two wet-sheet packs a day, remaining in each one hour; after that I gave him a cold bath—he got on nicely. The spots covered the entire surface of the body. After the fever was subdued, I discontinued the packs, bathing him in tepid water. It is now one week and one day since he was taken ill. I must add that he had a dreadful cough, spitting phlegm. I kept a wet bandage over his chest night and day; the cough is much better, and has nearly disappeared. This is a triumph of water-cure, dear Mrs. Nichols. I only hope that you will be able to spread it all over England. I still have my old disease hanging about me, but I follow strictly the rules you laid down for me. It is one year, the 22nd of next month, that I began your treatment. The scurf comes out abundantly on my eye-lids and some parts of my face, but the spots are not nearly so large as they were. It is now about eight months since the menses ceased, and they have not appeared yet, I feel much stronger than when I began, and I do trust and hope I shall soon get cleared of this scurvy. I am very weak and unwell now from having caught a cold in a draught. All day, last Friday, my bones and head ached most fearfully. I thought it was *measles* on Saturday, but it was not. I could hardly keep about. About four o'clock, p.m., I took a hot-air bath and cold sponge bath after; went to bed about seven o'clock, and put on my bandage that I always wear. It seemed so cool and comforting to my aching bones. Please send me advice.—S. A.

Water-cure treatment, when successful, suspends the menses from three months. In cases of very severe chronic disease, they may not appear during the whole time of convalescence. The most protracted case of cure in my practice was three years. The patient entirely recovered, and has had remarkably fine health since. Persons are frightened when the menses cease, thinking it a cause of disease, while it is only a coincidence. The disease causes a cessation, as there is not strength enough to continue the function, and at the same time restore health. In water-cure, the cessation is regarded by wise physicians as a good symptom. The vital force is engaged in recuperating the health of the patient, and therefore the function is suspended.

We can hardly learn humility and tenderness enough, except by suffering.

ANSWERS TO MEDICAL INQUIRIES.

By Mrs. Nichols.

Let all those who are suffering from errors of ignorance in their childhood avoid quacks and quack medicines as they would shun death.

Remember that when you have left an evil habit half the battle is won. If its consequences do not leave you, it is to simple and natural means that you must look for relief.

First keep the mind clean. Do not think of any evil thing. If a bad thought shoots through the mind do not mind it, and do not retain it. An eccentric man once said of evil thoughts, "It is one thing for a bird to fly over your head, and another for you to allow it to build a nest in your hair."

Simple plain food, avoiding flesh meat, except for dinner, and wholly disusing it if you can, will aid you in your cure. A resolute will to keep from evil, and to feel that in so doing you take hold on help visible and invisible, is the highest means of cure. We really are partakers of the life of honest souls who are in the same sphere of good with us, whether they are embodied or set free from the burden of our hard material life. The good old doctrine of guardian care ("And he shall give his angels charge concerning thee"), needs to be revived among us. The mother's careful nursing love can never die. She may be removed from our sight, but her love lives for ever. It is therefore good for us to feel that there is strength ready to be infused into our life the moment we resolve to do our best. The penalty of ill doing is no more swift and sure than the reward of doing well. "Cease to do evil, learn to do well." This command is to all, and it should be a comfort as well as a command to those who have sinned in ignorance and from an evil inheritance.

To J.S., who wishes to know how to cure erysipelas, I give the details of a case which has just occurred in our practice. Miss N., aged 56, had a scrofulous taint in the system that had appeared before in the same form, though on the leg. It now appeared in the face and head, which were so swollen that no recognition was possible. The skin of the face and neck were like a burn, and an abscess in the cheek, and also one in the ear began early to form, and ultimately threw off a large quantity of pus.

The treatment was by sweating in the portable hot air bath, washing in tepid water, and bandages wet in tepid water around the stomach, and also on the affected parts. When the smarting was too severe under the wet clothes the inflamed surface was dried and flour was dredged over till the air was effectually excluded. When the smarting again commenced the flour was carefully washed off, and the tepid wet cloths again put on, and kept on as long as the patient could bear them.

The flour and wet cloths were alternated, as each could be best borne.

This course, with very light diet of brown toast and warm water with a little milk in it, brought the patient to comfortable convalescence in a month from the beginning of the treatment.

The homœopathic remedies given were nux, belladonna, and nervine.

I must remark here that the custom of giving beef tea and wine in this exceedingly acute febrile disease is very bad practice. Doctors seem determined almost universally to stimulate patients with animal food, wines, spirits, &c., even when the blood is already aflame with the results of such stimulation.

To the gentleman who desired to know how to treat his sister who had a light apoplectic attack, followed by partial paralysis, I give the following:—Rev. W. B. was affected with strong apoplectic and paralytic symptoms, after having laboured excessively in preaching and other duties incidental to his profession. He was obliged to breathe bad air, had improper food, and very little rest. The cerebral conjestion was not so great as to cause insensibility, but the pain in the head and numbness of one side, and almost imperceptible pulse, a turning of the eye on the numb side, indicated that palsy was imminent. Treatment—perspiration in hot air for fifteen minutes daily, cold sponge bath after, and much rubbing by an attendant, for two weeks; then the needle bath was substituted for the sponge for ten days; 30th dilution of nux, &c.; light, lenten diet, only two meals a day. The last week of the treatment the head and benumbed side were well, and the patient able to walk several miles a day with ease. He was advised to do light work, to take regularly his two lenten meals a day, to use the hot air bath three times a week, with cold sponge after, and to continue the use of nux. Two moderate meals a day sustained this patient well, with an allowance of apples besides. But no further fasting could be allowed. People are to remember that too much food and too much fasting may be equally injurious.

MY COLD.

During the month of December I was much exposed to the severe weather in the care of patients outdoors, and in the house. I was seized with a very violent ague and sore throat, pain in my bones, and altogether what might be called a very bad cold. I wished for all reasons to make short work of it, and I am happy to say I was cured in 48 hours, being left rather weak, but quite well of the cold. Treatment—I fasted 43 hours, taking only water, and during that time I sweated in hot air, and in a wet pack five hours. Let any one who has a bad cold take a hot air bath in the day, and pack the chest in wet cloths at night, and use the cold bath after, and fast, or take only thin gruel, and it will make short work of the cold. To eat, and nurse a cold, and take drugs, is not half so pleasant or economical a way as the one above recommended. You see I give example as well as precept.

"I have a baby three months old, and my milk has failed. I am a teetotaller and cannot increase its flow by beer, ale, porter, stout, or spirits. What can I do, when the disease among cattle alarms me so much, that I dare not feed my babe on milk? I read in a medical journal, the other day, that the poisonous virus of disease remains potent even after boiling—that neither boiling nor rapid roasting, even to dessication, affects the poison of malignant pustule. How can I dare to give my baby even boiled milk, when cattle disease is rife? I have seen a neighbour's baby, whose mouth was so sore, that the whole inside looked like flame. Certainly this was mouth disease. What *am* I to do?"

My dear Madam, you are not to get frightened out of your common sense. Milk is the natural food of a babe, as fruits and farinacea are the natural food of a man: but man contrives to live sometimes entirely, as the North American hunters, on animal food; and many English people live largely on flesh meat. If you ask your next neighbour what he or she had for dinner, the reply will be beef, mutton, fowl, one or all, but not a word of the kind of vegetables or fruits that were on the table. Now, if you take some of the finely-ground Food of Health, or fine, sound oatmeal, and beat a teaspoonful of it with powdered sugar, and enough cold water to make it like a little cream, and then pour boiling water on the mass, stirring it till it is cooked, and about the consistence of milk, you have good nourishing food for your baby. If you can add some good milk, it will be better. If you cannot get healthy milk, you can stir into the gruel, when hot, a well-beaten egg. A fair imitation of milk is thus made, and it is very healthy. It may be given whenever you have doubts as to the health of the cows that supply your milk. It is a well-known fact that disease or poisonous food is thrown out of the system by means of the milk in the cow and in the woman. The calf, or the babe that nurses, will be killed, while the mother's life is saved. Women who drink beer and spirits, or tea and coffee, throw off the poison in their milk, and an abundant flow is induced by the presence of the poison. It is nature's way of freeing the system of an evil. Cows fed on distillery slops, give quantities of poisoned milk, till they finally wear out and die; and English mothers who drink the same, in a little nicer form, poison their children, and wear away their own lives surely and steadily.

The mother is the natural nurse of her own child; but our lives are unnatural, and the denaturalisation has become so general, that even the cattle are as sick as we are. Fifty years ago, whoever thought of the wide-spread plague that now visits our dumb fellow-creatures? We are beginning to be afraid to eat the cows or drink their milk. The pigs and the sheep are as badly diseased, or worse. Those who cannot live without animal food, are beginning to ask, "What are we to do?"

To return to the baby. Fruits that are ripe are good for infants, as soon as they desire them. If a babe can hold a ripe apple or pear and suck it, let the mother be pleased. The patent foods for infants, arrowroot, sago, and so on, had better not be given. The babe would die on corn flour, arrowroot, &c., if no milk were added. Just feed your baby on good, honest, wheaten or oaten food, or rice prepared by yourself or those you can trust. Secrecy in food means high prices.

Let us eat, then, and feed our children on food that we know is wholesome, even though it be cheap or reasonable in price.

"My Dear Madam,—I am afflicted with dyspepsia these last fourteen years, and I have spent a fortune on doctors. Of late, I have determined to consult you. I have burning, acidity, constipation, and fearful headaches. I eat very little, but it all turns to fire in my stomach. I take a cup of milk at seven a.m.; breakfast at nine a.m.—bacon and bread and butter and coffee; a biscuit and half a glass of wine at eleven a.m.; at one o'clock p.m. we have dinner—two vegetables and beef, mutton, pork, or fowl, plain pudding, or tart—we are very plain livers, and I eat moderately. At four p.m. I have tea and thin bread and butter; and at 8 p.m. we have supper—our supper is very plain, and the meat is cold. My doctor wished me to eat little at a time, and often; but I seldom eat more than six times a-day, even if my cup of milk in the morning before rising, or my biscuit and half glass of wine at eleven a.m. can be called eating. I pray you give me your best advice. I suffer much from sinking faintness at the pit of the stomach."

My Dear Madam,—My best advice is that you should read Dr. Nichols' paper on dyspepsia, in the second number of THE HERALD OF HEALTH. I can say nothing more or better than he has there said.

I will tell you how I live and work constantly, and I do not have indigestion or the least sinking or faintness, or any one of the evils that you describe. For instance, this morning I had three fine, large walnuts, *not kiln dried;* three ounces of brown bread toast, a little fresh butter, and a superb pear. The pear was a gift from an old woman, who walked about four miles to bring it, because, she said, I saved her life in winter, when she had taken a hard cold. I recommended a sweat and a bath, and gave her a blanket. She had not had a new one in forty years. "I took the sweat, and I washed myself all o'er, and I felt as if I could jump o'er a 'ouse." This was her commentary; and many a nice apple and sweet pear have been my reward. For my dinner I had a dish of shelled scarlet-runners, that English people are not wise enough to eat. I had also potatoes, beetroot, and brown bread, and then another of my grand pears.

This evening at seven o'clock, if I am hungry, which I am not often, I shall eat a piece of brown bread, and three walnuts, or a pear. My drink is pure, cold water, and nothing else. In warm weather, I drink lemonade. I used to drink what we call *Cambric tea*,—that is, boiling water poured on milk and sugar, like tea. But I like better the cold water in Malvern, it is so pure and bright. In London I drink cold water, filtered—but if the water were hard, or in any way impure, I should boil it, if I had no filter. I must particularly call your attention, in the article on dyspepsia, to what is said of your breakfast, viz., bacon; also the effect of animal food on the stomach. In conclusion, I do not know, from any unpleasant feeling, that I have a stomach, and I have no more pain in my head than in my hands or my feet.

If you will resolutely follow the advice given in Dr. Nichols' paper on dyspepsia, you will have no need of doctors, or drugs, and you may save health and money for the best use. Your faint and sinking feelings will leave a rested and unstimulated stomach.

MY SIGHT.

By MRS. NICHOLS.

I AM often asked if my sight continues good, and also "if it continues to improve."

Those who do not know the structure of the eye, and what cataract is, and how it is extracted, are the ones who ask the latter question. I am happy to say that since the darkened lens was extracted from my eyes, and the interval passed that must be allowed for the healing of the cut cornea, my sight has been remarkably good. I work at reading and writing many hours in the day as a rule, without fatiguing my eyes; and my distant sight is like that with a good field glass.

I feel an enthusiastic desire to inform the blind that there are safe means that may be used for their relief.

When I had become blind from cataract, I used remedial treatment, and after six months of darkness, I began to see a little light; this increased by the absorption of the cataract, till I could tell all colours, read titles of books and newspapers, and separate written words. If I had been in youth, I should have persevered in the treatment that had given me so much sight. I felt that I had not time or strength to recover wholly without an operation. I therefore employed an operator who is, I am sure, one of the best opthalmic surgeons in the world, Dr. C. Bell Taylor of Nottingham. His skill could not have given me the immunity from inflammation and consequent suffering, if my system had not been prepared by a bland and unstimulating diet, and by water cure.

Allopathy has its means for subduing inflammation which are always questionable, and sometimes fatal. Water Cure and Homœopathy have their means, and I need not say how much I prefer them. But, if there is proper diet and *regimen* before and after operations upon the eye, no treatment of any kind is needed. There is no inflammation to subdue, and scarcely any intolerance of light, which is so formidable, and causes such intense suffering in cases treated allopathically, with ordinary diet and *regimen*.

I had two operations some three months apart. For the first, I was not as well prepared as for the last. I had not been able to take exercise in the open air for some time previous to the first operation.

My dimness of sight caused a great want of freedom in locomotion. I was also a good deal depressed. I had great fear of taking any anæsthetic, from the condition of my lungs and heart. The careful use of ether in the first operation, by my esteemed friend Dr. Morris of Nottingham, took away much of my dread of this anæsthetic. I came to feel that in good hands ether is quite safe, unless there is exceptional disease. I came to the second operation with renewed hope and confidence, having the advantage of three months of outdoor exercise, in the finest portion of the year, and in beautiful, healthful Malvern. Also, I had been very careful in my diet, excluding animalized food very much, and taking mostly bread and fruit and the best vegetables. The result was such as we have no record of in opthalmic surgery. With the first operation I was confined to the house for a week, and to one room three days. In two weeks, I went out and saw people.

In the second operation I was confined to my room only 48 hours. I had very little intolerance of light, and on the third day I saw my patients without inconvenience. In a week I was in church in a broad blaze of summer light, my eyes bare, without suffering. The most skilful operation may be rendered of no avail by inflammation, and the dreadful drugs used by allopathists to subdue it. I can say from experience that the operation for cataract may be safe, painless, and successful if the patient has proper preparation by baths, and diet, and with a skilful operator and assistant, as it was my good fortune to have.

People have so little knowledge of the structure and functions of the eye, and of its diseases, and they so magnify evils and terrify themselves that the blind fear, and their friends fear, an operation when it involves as little danger and less suffering than one has from a grain of sand or an atom of cinder in the eye.

I would give hope and courage to the blind, and especially to those who are blind from cataract either incipient or fully formed.

My experience has shown that incipient cataract may be cured by absorption as readily as nervous diseases of the eye by proper treatment, and where there is no hope of this a little self-denial prior to an operation as to food and drinks, a few hot-air baths, a skilful surgeon, and a good assistant to administer the anæsthetic, and the careful watch and ward for a week of a physician who knows the value of antiphlogistic *regimen* in preventing inflammation, and the blessing of sight is given with its consequent usefulness and happiness. The joy of vision when one has been deprived for a time of sight is inexpressible.

I have two pairs of glasses: the lens for near sight enables me to read fine print and to thread a Cambric needle, while the distance lens has the effect of a good field glass. I see many miles away with a clear distinctness that is much greater than that of my best natural sight. There is no diminution, and no improvement. I have steady and excellent sight for reading and for distance.

A GREAT anguish may do the work of years, and we may come out from that baptism of fire with a soul full of new awe and new pity.

COMMONPLACE people bear a conscience, and do the painful right. They have their unspoken sorrows and their sacred joys—they have loved their firstborn and mourned their dead. Is there not a pathos in their insignificance—in our comparison of their dim and narrow existence with the glorious possibilities of that human nature which they share?

MURDEROUS OCCUPATIONS.

A PECULIARLY sad instance of death from lead-poisoning was investigated this week before Dr. Hardwicke, at an inquest held in London. The deceased, Mary Ann Wilson, only three weeks ago went to work at a white-lead factory. After being there two or three days she felt the effects of lead-poisoning, which turned her lips blue. Subsequently the neighbours found her lying on the floor in convulsions, and in a dying state; and the next day she died from congestion of the brain, and disease of the chest organs, consequent on the evil effects of her employment. The coroner recommended that persons who follow this employment should drink diluted sulphuric acid to counteract the action of the poison. —*Birmingham Daily Post*, Sept. 2, 1875.

There were, a few years ago, in Sheffield, and perhaps there may be now, trades in which few men lived beyond the twenty-fifth year—not of work, but of life. And it is quite true, we believe, that the workmen objected to sanitary improvements on the ground that it would increase the age, and therefore the number of workmen, and would make it more difficult to get employment. But no one can doubt that it is the duty of the Government to either reform or suppress all trades which are needlessly destructive of human life. But this it seems is not the doctrine of *some* political economists, for a writer in the *Nautical Magazine*, opposing the humane efforts of Mr. Plimsoll, tells us that human life has its commercial value, and that "those who bring forward its sacredness as a plea for protective legislation of any and every kind are assuming not only a false position, but a position that is likely to work a serious injury upon the country at large." No doubt human health, well-being, happiness, life itself, are quite secondary considerations with the great mass of "money makers" by all sorts of means. What do landlords usually care for the health of their tenants? or manufacturers for that of their hands, except as it may increase their efficiency as workers? But wise and noble leaders of men are careful of them in every way.

RAT BITES AND OTHER BADNESS.

THAT celebrated ratcatcher, Dick Loyer, is reported as follows by the *New York Times*:—

"Rat bites is poisonous. A rat that feeds in a corn warehouse is not *poison*—but you get a bite from one of them fellers what feeds on hotel swill, or in a slaughter house, and you are sure to catch it. I got a bite by a slaughter house rat once, and my arm swelled up till I thought it would have to be cut off. But the doctor fixed it."

This extract from the ratcatcher's narrative is instructive, and of a piece with facts respecting the introduction of morbid matter into the human organism from diseased human beings. The play of kiss in the ring has become of late years unpopular with young people, because the syphylitic sore mouth was communicated by kissing.

The people complain that when a child is vaccinated and becomes affected with the purulent eruption caused by the vaccine virus, that the other children take the disease by sleeping with the affected one. It is true that if a healthy child or adult is bitten or scratched, and virus introduced, there is the resistance of health, and often the disease is not communicated.

I knew two surgeons who were very different in their habits of life. One had been for fifteen years a vegetarian and teetotaller, the other lived high and drank a good deal of wine and spirits. Both got scratches when dissecting. The vegetarian had a swelled arm, considerably inflamed, he reduced the inflammation, and cured the disease by bathing, applying wet cloths and fasting. The high liver got first a swelled and inflamed arm then the disorder spread, and finally took in his whole body. He died in three weeks, after indescribable suffering. M.S.G N

WINTER BATHING.

WARMTH is relaxing, cold invigorating. Why? "Heat is life," we have it said, "and cold is death." But everybody knows that cold air and cold water are refreshing, reviving, bracing, and invigorating. Here it is. In warm air and warm water there is nothing to resist, and nature relaxes her efforts. Cold demands action, and exercise gives strength and energy. It is demand and supply. Action and reaction bring vigour and strength. Natural heat is of life. Too much artificial heat lowers the tone of the system. Many people threatened with consumption get vigour from a cold bracing air, but are none the better for a warm relaxing climate.

People shrink from bathing in cold weather. A great mistake. When the air is very cold one scarcely feels the chill of cold water. When the air is below the freezing point the coldest water feels warm. We have often broken thick ice to get our morning bath, when every drop would freeze to the floor, and never felt the worse for it, and never omitted our bath on account of the weather. But nervous, sensitive, chilly people may wash in hot water if they will, and before a good fire, if they can; but, to leave the skin in good condition to resist the cold, they should always finish with a dash of cold water all over, and a jolly good rubbing with a flesh-brush or rough towel.

TAPE-WORM A CAUSE OF BLINDNESS AND DEAFNESS.—Dr. Williams reports the following case:—A child eight years old, puny, but in fair health, suddenly lost its hearing. Two weeks afterward it, in one day, lost its sight. Blindness was complete for one day, then occurred successive intervals of sight and blindness. On the removal of a worm, both hearing and vision returned. The cause of the tape-worm was a slice of pork.—*New York Herald of Health.*

THE SWISS WATCHMAKERS

WHY THEY BEAT THE ENGLISH.

Sir John Bennett, the great English watchmaker, says:—The life of the Swiss watchmaker was vastly superior to that of the watchmaker in Clerkenwell, Islington, and the neighbourhood, where they lived in close alleys and courts, having no Sunday, breathing but little of the breath of heaven, and seeing scarcely any of the sun's glorious light. The Swiss had also much better tools to do their work, and by means of the mandril the female could turn out very rapidly and most exactly a great variety of work. The education of the children there was very different and much superior to the education given to the poor English children. In Switzerland it was national, free, and compulsory. It was there believed and acted upon, that if men and women were required to carry out the system of work, means must be taken to perfect the men and women in intelligence; they must know what was right, and not only that, but must practise what they knew. Their education was begun in infancy, because it was believed that just in proportion as the workman was made perfect, so was the work of his hands. In Switzerland ignorance was considered as a poison and a pestilence for the people, and detrimental to the highest interests of the community, therefore it was made criminal for a parent to bring up his child in ignorance, to be a nuisance to the community, when the child could be made a man in the true sense of the word. The Government decided that education should be universal, compulsory, and good. Since that decision great advances had been made towards a practical result, and their system of education was about as perfect as any that existed in the world. Both male and female were educated in Switzerland. A college for high class education has been established, and in that college the future watchmakers are being educated. All classes are taken in the college, and in the same rooms could be seen hanging side by side the handsome dresses of the children of rich parents, with the commoner made up clothes of the children of poor parents. The Swiss could not be made to believe that "ignorance is bliss." Wherever business, enterprise, or money, or the power of distribution would avail to accomplish anything, the English beat other nations; but where precision, beauty in decoration, or colour, or form was required, there the English suffered. Every school in Switzerland was a school of design, and every child had a pencil in his hand; and that was the way to cultivate the power of observation. There was also much refinement among the Swiss: there were to be seen paintings and music; every child had half an hour's instruction, morning and evening, in musical notation. Although certain persons might not think much of such education, still it tended greatly to refine the pupils, and it afforded a certain amount of rational amusement, and human beings were better prepared for work by such innocent enjoyment. In that country there was no need of workhouses. At six in the summer and at seven in the winter the children of all classes were sent to the common school, for grades and social distinctions were no more thought of there than grades of instruction, or grades of light from the sun, or a different atmosphere for different persons; but in Switzerland, in proportion to the destitution of the child so was the excellence of the education given to it, for, having no friend, it should be educated as to become its own best friend. In the evening the children had an hour's practical instruction in the work of their future life. If it were to be watchmaking, they had their instructor, and thus served an hour of their apprenticeship. The law compelled them to attend school up to the age of fourteen. But in England if the great-grandfather were a pauper, so was the grand-father, the father, the child, and so on to interminable generations, and thus there was 5 per cent. of the people in this country made paupers by gross mismanagement. The educational commissioners in Switzerland were the fathers of the poor Swiss children; and, after their education, application would be made to some manufacturer, to whom, after having a report of the boy's progress at school, he would be apprenticed. The boy then stood on his own merits, and probably became a foreman. After a number of years one of the commissioners might go to the bankers, who would invite the man's employer, and, if a good account were given of the foreman, he would be advanced £2000 or £3000. Thus the lowest classes were brought up and educated and became men of business. In England, however, it was once a pauper always a pauper. That really was the reason why the English workman was beaten by the Swiss. The result came from the very foundation—the character, the quality of the instruction that the child obtained. He had once heard Cobden say, "Put brains into the ends of the boy's fingers—brains; fingers alone won't do." And they did so in Switzerland, and that was the reason why they beat the English. Sir John Bennett is said to be not only the best watch and clock maker in the world, but the kindest landlord in Sussex, and his farm near Hastings is described as "a rural paradise."

An angry man is a lunatic.

A way supposes a best way.

The labourer is merely "a hand."

We have all our secret sins.

Blows are sarcasms turned stupid.

Our virtues are vices when in excess.

There will be queens in spite of Salic Laws.

Learn to tolerate criticism, and to profit by it.

Wit is a form of force that leaves the limbs at rest.

RUM AND MILK.

William Rathbone, Esq., M.P., presided the other night at a Temperance concert in Liverpool, and made a speech which we should like to give in full, but we have room only for the following extract:—Any one (said Mr. Rathbone) who knows anything of our hospitals knows that the work of a hospital nurse is one of the most fatiguing, though one of the most interesting in which a woman can engage; and it has always been supposed to be so fatiguing that the hospital nurse must have an extra allowance of beer to enable her to do it. Well, the lady superintendent of one of the largest and best managed hospitals in the kingdom had doubts upon this subject, and she persuaded her committee to allow her to give her nurses beer-money instead of beer, and let them pay for their beer themselves if they thought they required it. At the same time, the committee said the nurses might have, if they wished it, milk, to the extent of about two pints a-day. Well, the nurses found that milk answered so well instead of beer that gradually every one of them took milk, and voluntarily gave up the use of beer altogether; and the lady superintendent says unhesitatingly that they are both stronger and enjoying better health in consequence. (Applause.) Now, what I want to say to you women here present is—Do try this, and get any of your friends who are in the habit of using spirits (which you are not) to try it also. If women would take a good cup of milk in the morning, and an extra supply when they had extra hard work to do, they would find it would give them strength, not temporarily merely, but that they were permanently better for the nourishment afforded, instead of wasting their strength and life by the use of ardent spirits. In appealing specially to the women, I have the greatest confidence in the power of women for good. The influence of a good, kindly, unselfish woman on brothers, husband, children, aye, on fathers also, is enormous. Most of us owe what is good in us to that influence. The most hopeless part of the drinking of the present day is that many of the women drink as well as the men; and it will be a bright day when they cease to do so, and determine to lend all their efforts to put an end to the evil. And if the women will do their part, men ought to do their part also. If they smile at a proposal to use milk as nourishment for men instead of beer, let me tell them this, that the finest population in this country, physically, out of whom lifeguardsmen used to be chiefly chosen for their height and strength—the population among the mountainous districts running on the borders of Lancashire and Yorkshire northwards—used in former days to be brought up on porridge or oatcake and milk; and I have heard the falling-off which is said to have taken place in that population attributed to the disuse of that diet. (Applause.)

EFFECTS OF LIGHT ON LUNATICS.

"Galignani" cites from the *Gazette des Hôpitaux* a curious article on this subject. Dr. Ponza, director of the lunatic asylum at Alessandria (Piedmont), having conceived the idea that the solar rays might have some curative power in diseases of the brain, communicated his views to Father Secchi, of Rome, who replied in the following terms:—"The idea of studying the disturbed state of lunatics in connection with magnetic perturbations, and with the coloured, especially violet light of the sun, is of remarkable importance, and I consider it well worth being cultivated." Such light is easily obtained by filtering the solar rays through a glass of that colour. "Violet," adds Father Secchi, "has something melancholy and depressive about it, which, physiologically, causes low spirits; hence, no doubt, poets have draped melancholy in violet garments. Perhaps violet light may calm the nervous excitement of unfortunate maniacs." He, then, in his letter, advises Dr. Ponza to perform his experiments in rooms the walls of which are painted of the same colour as the glass panes of the windows, which should be as numerous as possible, in order to favour the action of solar light, so that it may be admissible at any hour of the day. The patients should pass the night in rooms oriented to the east and the south, and painted and glazed as above. Dr. Ponza, following the instructions of the learned Jesuit, prepared several rooms in the manner described, and kept several patients there under observation. One of them, affected with morbid taciturnity, became gay and affable after three hours' stay in a red chamber; another, a maniac who refused all food, asked for some breakfast after having stayed twenty-four hours in the same red chamber. In a blue one, a highly excited madman with a strait waistcoat on was kept all day; an hour after, he appeared much calmer. The action of blue light is very intense on the optic nerve, and seems to cause a sort of oppression. A patient was made to pass the night in a violet chamber; on the following day, he begged Dr. Ponza to send him home, because he felt himself cured; and indeed, he has been well ever since. Dr. Ponza's conclusions from his experiments are these: "The violet rays are, of all others, those that possess the most intense electro-chymical power; the red light is also very rich in calorific rays; blue light, on the contrary, is quite devoid of them as well as of chymical and electric ones. Its beneficent influence is hard to explain; as it is the absolute negation of all excitement, it succeeds admirably in calming the furious excitement of maniacs."

A Village of Fowls.—In an American paper there is an account of a "Mammoth Hennery" at Colorado. "It covers four acres, which are laid out like a village, with streets and avenues, along which are built long rows of houses of various designs. Regular families of hens are assigned to these houses, and it is found that they quickly domesticate themselves without troubling their neighbours. The population of the village is about 2000, divided closely into social cliques of Brahmas, Cochins, Shanghais, and Dorkings, and the chief products are eggs and spring chickens. Sundays included, the industrious matrons of the village turn out daily from forty to fifty dozen of eggs, which are sold in the city of Denver for from 1s. 3d. to 2s. per dozen."

A NEW-YEAR'S GREETING.

(*To the Editor of the Herald of Health.*)

SIR,—I am so glad to learn that the *Herald of Health* is meeting with success and so widely appreciated, and that we are likely to have it weekly. I had feared that its principles and counsels were a little too advanced for popularity. But surely, even with regard to what may seem to many so comparatively trivial a matter as our daily food, the Spirit of our God now "moves on the face of the waters," inspiring His children with fresh ideas and aspirations towards purity and perfectness in every detail of life, creating a demand and providing a supply. We have every reason to believe that a reform in our general habits and customs, through a knowledge which induces us to secure for ourselves, and as far as possible for all humanity, good drainage and ventilation, clean, airy dwellings, plentiful baths, pure food, and pure water, is one that will do more for the downfall of poverty, vice, suffering, and of "all that maketh a lie," more for the spread of truth and righteousness, the coming of God's kingdom, than any amount of mere intellectual, or even religious teaching can do—I mean the religious teaching of the old type, consisting chiefly of mere doctrine and precept, mostly apart from the daily duties, needs, and cares of our common life. We shall now hope to find many "Model Vicars," sensible ministers amongst all sects.

This little monthly is bringing many of us into a new world of thought, and we feel as though youth, with its enthusiasms, hopes, and delights had again returned: for, however much we may have benefitted personally through the laws of health here inculcated, we have hitherto been able to do little more than dream of the rich blessings that ought to, and might be, the freehold of even the poorest. But now we have found a voice "crying in the wilderness," a voice of eloquence and of power—a means of bringing our truths before the world in a manner best calculated to win attention and approval. We have principles, facts, experiences, illustrations, propositions, all of which appeal to the reason and the understanding; to our British love of the practical, no less than to our highest ideas, our love of the pure and the beatific. Here we receive medical advice and treatment, without the necessity of nasty drugs and long doctors' bills; a scientific teaching which may not only increase our material gains and our physical wellbeing, but give spiritual health and peace, whilst it enables us to understand the better how truly these bodies of ours, so fearfully and wonderfully made, may become the "temples of the Holy Ghost;" how sacred and valuable is human life; what reverence and love is due to our Creator. It is so gladdening, then, to think of these truths being scattered broadcast, that I for one scarcely know how to be thankful enough.

This month's issue makes me specially so, because of its prospectus of the new Co-operative Sanitary Company—an embodiment of noble thought and work, to be founded and sustained on the sound principles of perfect justice. As readers of the *Herald*, I hope we shall, one and all, do our utmost to make this undertaking also a success. Thereby we may secure for millions of our fellow-beings such untold wealth and happiness, a future that shall bring them such merry Christmasses and glad New-Years as now fall only to the lot of a favoured few. Yes! our future is bright with promise. Angel voices herald our way; but the present now demands our zeal—the lowlier, rougher work. May we all be faithful to it, not waiting for to-morrow—realizing *now* the "joys of conscience." And so may the coming one be our happiest of "Happy New-Years!"

ELLEN J. PEARCE.

December, 1875.

EFFECTS OF PROHIBITION.—A letter from one of the districts in America where no one is licensed or allowed to sell intoxicating liquors says:—"There is not a drop of alcoholic stimulants sold in this county, and the contrast between the past and present is a wonder to those accustomed to behold the scenes of but a few years ago and now. Instead of wranglings, black eyes, and bloody noses, enmity and strife, drunken brawls and midnight debauchery, we have a peaceful and quiet community here and throughout the entire county. At the late sitting of the Grand Jury for this county, there was not a single case of assault and battery before them, nor a single complaint of a violation of the public peace. Our jail is without a tenant, and has been for the past six months. The operation of the law has wrought a complete revolution here."

REFORMING THE DRINK TRAFFIC IN THE EAST.—Sir W. C. Trevelyan, Bart., publishes the following extract from a letter he has received from a native of Ceylon:—"I see the Ceylon Government has been trying to check the drink traffic by reducing the number of licenses—even to the extent of sacrificing not a small portion of their revenue. One of the most beneficial of recent reforms has been the reviving of the old village tribunals of this island, and giving them a good deal of the control they exercised from times immemorial over their own affairs. You will be glad to learn that the two first measures they have invariably enforced are compulsory universal education and the expulsion of the drink traffic from the village. As far as I understand your bill, it wants to give the parishes in England a similar discretionary power; and I have no doubt they would exercise it as judiciously in England as my countrymen have done in Ceylon."

CHEAP LIQUOR.—The moss on which the reindeer feeds is now gathered in Sweden and Russia, fermented, and distilled to make brandy. It is said to yield as much alcohol as good grain does, and more than three times as much as potatoes. It costs only the trouble of gathering; and if the Northern Governments do not tax liquors heavily for revenue, people can get drunk very cheaply. They have but to gather the moss, ferment it, and make beer, or boil it in a tea kettle, and condense the steam. Nothing is easier than to convert good food into bad poison, and so make men into brutes or fiends.

THE FEAT OF CAPTAIN WEBB.

It was a plucky thing to swim across the Straits of Dover, and the brave sailor became the hero of the hour, and has been munificently rewarded. Whenever John Bull is strongly moved in any way he puts his hand into his pocket. Joy, grief, admiration, gratitude, all take the form of a money testimonial.

It is by no means certain that no Briton has ever swum the Straits before. We know little of the prowess of our savage ancestors. It is certain that the natives of many of the South Sea Islands would think little of swimming such a distance. They begin to swim as babies, and pass some portion of every day in the water. If they wish to visit some distant island, even beyond the horizon, and have no canoe at hand, they plunge into the sea and swim for it, with no lugger to attend them, no beer or brandy to stimulate them to new exertions. And fancy the folly of giving a swimmer in mid-channel a dose of cod liver oil! That was a doctor, doubtless. When a man is exerting all his muscular power, he should take nothing into his stomach. It is a mistake to take stimulants—but food is poison. Absolute rest of the stomach is the condition of either great intellectual or physical exertion. Captain Webb threw up the cod liver oil, or it would have been worse for him.

There have been cases of sailors being picked up in the channel after twelve hours' swimming—perhaps longer. It is only a question of vital heat. Any man who will put on a close-fitting dress of plush, made so as to resemble the fur of the seal or beaver, may keep comfortably warm in cold water for any length of time. With proper swimming dresses, any good swimmer may swim across the channel. And if he will put on a pair of broad swimming sandals, so as to give the bottoms of his feet a surface of 50 or 60 square inches, he can do it in about twelve hours. It may be as well, however, to go in the steamer. The next man who swims the channel will not be welcomed back to Dover by enthusiastic crowds, nor be rewarded by a national subscription.

Since the wonderful feat of Captain Webb, we have had two exploits in the Thames, which may be to many persons even more interesting. Two girls, both under fifteen years of age, have plunged into the river at London Bridge, and swum, one five miles, with the tide, to Greenwich, the other seven miles, to Woolwich; and either, it was evident, could have easily doubled the distance. In fact, it is much easier to swim than to walk. The only difficulty is that of temperature. With good bathing dresses almost any one may remain in the water for hours at any season; but we strongly advise people to be careful how they tie themselves up in the close air bags of Captain Boyton. A man may be poisoned by absorbing his own exhalations. Impervious garments are neither comfortable nor healthful.

THE RIGHT SORT OF RELIGION.

We want a religion that goes into the family, and keeps the husband from being spiteful when the dinner is late, and keeps the dinner from being late—keeps the wife from fretting when the husband tracks the newly-washed floor with his muddy boots, and makes the husband mindful of the scraper and the door-mat—keeps the mother patient when the baby is cross, and keeps the baby pleasant—amuses the children as well as instructs them—wins as well as governs—projects the honeymoon into the harvest-moon, and makes the happy hours like the eastern fig-tree, bearing in its bosom at once the beauty of the tender blossom and the glory of the ripened fruit. We want a religion that bears not only on the "sinfulness of sin," but on the rascality of lying and stealing—a religion that banishes small measures from the counters, small baskets from the stalls, pebbles from the cotton bags, clay from paper, sand from sugar, chicory from coffee, beet-juice from vinegar, lard from butter, strychnine from wine, and water from milk-cans.

The religion that is to advance the world will not put all the big strawberries and peaches at the top, and the bad ones at the bottom. It will not offer more baskets of foreign wines than the vineyards ever produced bottles—and more barrels of English flour than all the wheat fields of England grow and all her mills grind. It will not make one-half of a pair of shoes of good leather, and the other of poor leather, so that the first shall redound to the maker's credit and the second to his cash. It will not let a piece of velvet that professes to measure twelve yards come to an untimely end in the tenth, or a spool of sewing silk that vouches for twenty yards be nipped in the bud at fourteen and a-half—nor the cotton-thread spool break to the yard-stick fifty of the two hundred yards of promise that was given to the eye—nor all-wool delaines and all-linen handkerchiefs be amalgamated with clandestine cotton—nor coats made of old woollen rags pressed together be sold to the unsuspecting public for legal broadcloth. It does not put bricks worth only £2 per thousand into chimneys it contracted to build of forty-four shilling materials—nor smuggle white pine into floors that have paid for yellow deals—nor daub ceilings that ought to have been smoothly plastered—nor make window-blinds with slats that cannot stand the wind, and paint that cannot stand the sun, and fastenings that may be looked at but are on no account to be touched.

The religion that is to sanctify the world pays its debts. It does not consider that forty shillings returned for one hundred shillings given, is according to gospel, though it may be according to law. It looks on a man who has failed in trade, and who continues to live in luxury, as a thief. It looks upon a man who promises to pay fifty shillings on demand with interest, and who neglects to pay it on demand, with or without interest, as a liar.

A GOOD PLACE FOR A GOOD WORK.

The Registered Offices of The Co-operative Sanitary Company, Limited, are at 429 Oxford Street, London, W. But Oxford Street is a long street, and we must be more particular. Number 429 is on the south side, a few doors west of Tottenham Court Road, nearly opposite the Oxford Music Hall, not far from the magnificent new "Horse Shoe" establishment, and its back windows look upon the great warehouses of Messrs. Cross & Blackwell of Soho Square. One could not well ask for a more central, conspicuous, or convenient locality.

Here will be published The Herald of Health, The Herald of Health Almanac, and Works on Sanitary and Social Science. Here may be found all the useful articles advertised in our columns—Foods, Mills, Filters, Baths, whatever we think most useful. Besides the foods heretofore advertised, we propose to keep a supply of the finest articles of every kind not readily procured elsewhere. And as the season goes on we hope to display such samples of delicious fruits as shall make all eyes dance and all mouths water. If the shares of our Company are taken as we hope they may be—every one who can do so taking one, five, twenty, a hundred shares—we will have such fruit supplies as were never seen in England.

Another peculiarity of our Sanitary Company will be a Fountain of Health. From a silver tube will flow into crystal goblets sparkling water from the springs of Malvern. There is no better in the world—soft, sweet, pure, salubrious. These springs have been celebrated for ages for their curative virtues.

On the first floor of our new premises, evidently made on purpose, and just what we wanted, is a charming little lecture-room for our Conferences, which will hold sixty, or, with a little crowding, eighty persons. It is a pretty vaulted room, ornamented with heroic sculptures, with a neat platform, comfortable seats, and perfect ventilation. The Conferences will begin at eight o'clock and continue an hour or longer. The subject will be stated in a brief discourse or paper: then discussion and conversation, in which ladies will take part as well as gentlemen. It is not improbable that there will be morning Lectures or Conferences for ladies only, for they, the actual and prospective wives and mothers of the world, need more than all others to know the laws of healthy life, and to become adepts in Sanitary and Social Science.

DOCTORS ON DRUGS.

Dr. James Johnson says: "I declare my honest conviction, founded on long observation and reflection, that if there was not a single physician, surgeon, man-midwife, chemist, or druggist on the earth, there would be less sickness and mortality than now obtains."

Dr. Truman in his work on food, says: "No disease can be cured by drugs without injury to the health; for the remedies employed for that purpose always cause some excessive and unnatural action of the body which lessens its power. The administration of drugs goes on the principle of administering a lesser evil to avoid a greater."

Radcliffe said: "On entering my profession, I thought I knew a hundred remedies for every disease; now, alas! at the close of my career, I leave a hundred diseases without a remedy."

What was the testimony of Baillie, in his day the undisturbed monarch of practice? In the prospect of going to render up his great account he said: "He had no faith in medicines whatever; he neither knew their manner of action, nor the principles which should regulate their administration."

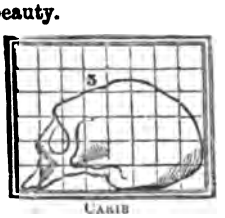
The celebrated Dr. Gregory declares that, "More than ninety-nine parts in a hundred of all that has been written on the theory and practice of medicine for more than one thousand years is absolutely useless and worthy to be known but as a matter of curiosity, or a miserable warning and example of the worst errors to which we are prone."

Authorities might be multiplied as to the mischief of medicine, and those physicians are wisest who use it least, and make physic "the art of amusing the patient, while nature cures the disease." The celebrated Sydenham is reported to have said, when on his death-bed, and surrounded by physicians who were lamenting his loss to the world: "Never mind: I leave three good physicians behind me." They crowded over him with eager looks, each hoping his name would be pronounced. He remained for some time silent, then said: "Yes, I shall leave three very good physicians,—air, exercise, and diet."

It is well to live, if we live well, and if we live badly we still want to live. This life has known and probably unknown uses. A long life, a healthy life, a happy life, are among the chief blessings of Providence. "In His right hand is length of days, and in His left hand riches and honours." If health were of little value, why miracles of healing? If this life is not worth preserving, why raise the dead? We cannot go against the instincts of humanity, and one of the strongest is the love of life, while a host of physicians, surgeons, chemists, and all sorts of quacks are supported by the universal desire for health and longevity. Suicide is generally considered a proof of insanity.

THE PERILS OF TIGHT LACING.

We are indebted to the eminent philanthropist, Sir Walter C. Trevelyan, Bart., for a copy of a tract on "Voluntary Distortions of the Human Figure by Artificial Compression, by the late Dr. Andrew Combe, reprinted from the *Phrenological Journal*, 1832." We copy and condense. The lower animals never attempt to build habitations inconsistent with, or injurious to, their health and enjoyment. Men frequently commit the most hurtful errors in constructing their dwellings. The lower animals are never injured by the clothing which nature provides for them; while man frequently produces great suffering to himself and his offspring, by injudicious clothing. But the most injurious and fantastic displays of human error are seen in the modifications of the form of the body itself, with the view of enhancing their comeliness and beauty.


Carib

The Carib admires a very low and retreating forehead, and by the application of sandbags in infancy, produces what he considers the *ne plus ultra* of beauty. The Flat-Head Indians of North America, also use similar means of cranial compression.

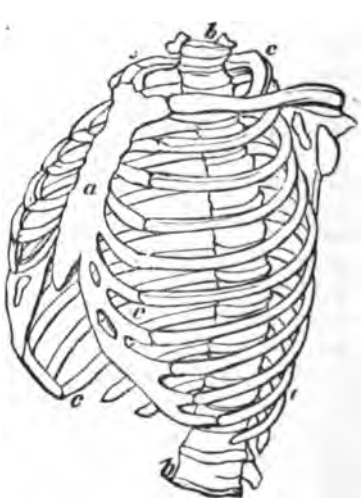
The Chinese have directed their attention to the opposite extremity of the human figure, and aspired to improve upon the wisdom of the Creator, by diminishing, by artificial compression, the feet of their females.

European ladies perceive the absurdity and want of enlightened taste which characterise these attempts; but they have entertained the project of improving the form of the body by compressing the waist: a proceeding literally analogous to those of the Caribs and Chinese on the head and feet. The fundamental principle, that human beings require to study their own constitution before being able to turn it to the best account, has not been recognised by any nation in the world; and our fair countrywomen in particular proceed as ignorantly and recklessly in compressing their figures, as the veriest savages who deform their nature by artificial operations, whether of compression, boring, or tattooing.

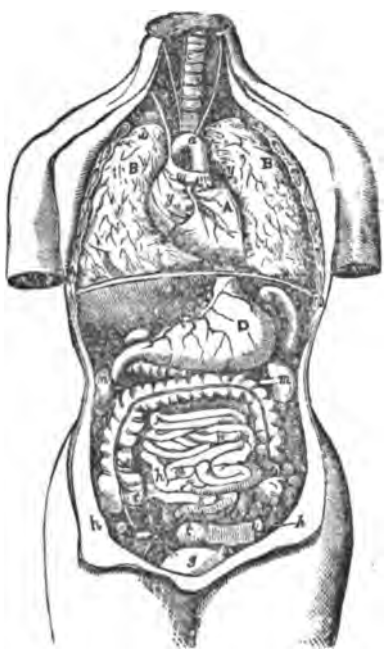
Fashion lives on novelty, and we have on this account much charity for its wanderings and eccentricities. Bonnets with a snout as long as an elephant's proboscis, or a margin as broad as a Winchester bushel, are merely ridiculous. Shoulders that look like wings, and sleeves as wide as a petticoat, we think are not particularly graceful; but they have at least the merit of being airy, and we take no offence. [What would the writer have written had he seen the balloon skirts and enormous chignons of ten years ago, and compared them with the bizarre costumes of the present mode?] We cannot, however, extend our indulgence to the compressed waist which is the rage at present. We know that as often as the waist is lengthened to its natural limits, this tendency to abridge its diameter appears; and we confess we are puzzled to account for the fact, for surely it is strange, that a permanent prepossession should exist in favour of a mode of dress, which is at once ugly, unnatural, and pernicious. Were fashion under the guidance of taste, the principles of drapery in painting and sculpture would never be lost sight of in its changes. The clothes that cover us may be disposed in an infinite variety of forms, without violating those rules which the artist is careful to observe. The true form of the body ought to be disclosed to the eye, without the shape being exhibited in all its minutiæ as in the dress of a harlequin; but in no case should the natural proportions (supposing the figure to be good) be changed. Ask the sculptor what he thinks of a fashionable waist, pinched till it rivals the lady's neck in tenuity; and he will tell you it is monstrous. Consult the physician, and you will learn that this is one of those follies in which no female can long indulge with impunity; for health and even life are often sacrificed to it.

Corsets are used partly as a warm covering to the chest, and partly to furnish a convenient attachment to other parts of the female dress. This is all proper and correct; but to these uses fashion superadds others, originating in fantastical notions of beauty. Corsets are employed to modify the shape, to render the chest as small below, and as broad above, as possible, and to increase the elevation, fulness, and prominence of the bosom. To show how this affects the condition of the body, we must begin by giving a short description of the thorax or chest, which is the subject of this artificial compression.

Every one who has seen a skeleton, knows that the chest consists of a cavity protected by a curious frame-work of bones.—



These are, 1st, the backbone *bb* (consisting of *vertebræ*, or short bones jointed into one another) which sustains the whole upper part of the trunk; 2nd, the breastbone *a*, about 7 or 8 inches long, and composed of three pieces; and 3rdly, the ribs *cccc*, of which there are generally 24. The twelve ribs on each side, are all fixed to the backbone behind; seven of these, the seven uppermost, are also attached to the breastbone before, and are therefore called *true ribs*. The eighth rib has its end turned up and rests on the seventh; the ninth rests in the same way on the eighth, but the tenth, eleventh, and twelfth, are not connected with one another in front at all. The fore extremity of each rib consists not of bone, but of an elastic substance called cartilage. The elasticity of this substance, combined with the oblique position of the ribs, constitutes a beautiful provision, in consequence of which the chest enlarges and contracts its volume to afford free play to the lungs.



Contents of Thorax and Abdomen.

We now wish to call attention to the form of this cavity, which, as we have seen, is surrounded and protected by the backbone, ribs, and breastbone, and is called the *thorax*, or chest. The uppermost pair of ribs, which lie just at the bottom of the neck, are very short; the next pair are rather longer; the third longer still; and thus they go on increasing in length to the seventh pair, or last *true* ribs, after which the length diminishes, but without materially contracting the size of the cavity, because the false ribs only go round a part of the body. Hence the chest has a sort of conical shape, or it may be compared to the bee-hives used in this country, the narrow or pointed end being next the neck, and the broad end undermost. The natural form of the thorax, in short, is just the reverse of the fashionable shape of the waist. The latter is narrow below, and wide above; the former is narrow above, and wide below.

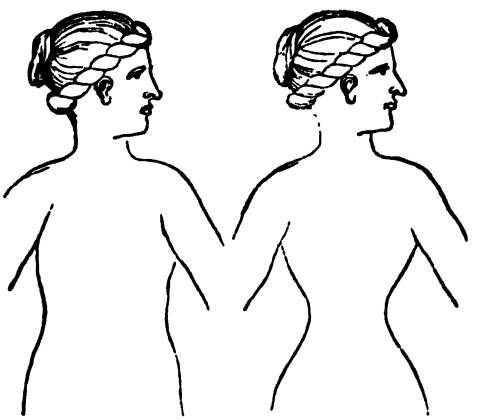
The *contents* of the thorax are, first, the Heart A, which is the centre of the circulating system, and which, for the sake of its metaphorical offices, every lady must be anxious to keep from injury: Next, the Lungs B B, and which occupy by far the largest space, and of the delicacy of whose operations every one may judge. There are, besides, either within the thorax or in juxtaposition with it, the Stomach, D; Liver, on the right side, and Kidneys M M, the Intestines and many nerves—all intimately connected with the vital powers. Most of these organs are not only of primary importance in themselves, but, through the nerves, arteries, &c., their influence extends to the head and the remotest parts of the limbs, so that when they are injured, *health is poisoned at its source*, and the mischief always travels to other parts of the system.

The lower part of the thorax is also much more compressible, and of course more easily injured by ligatures than the upper. In the upper part, the bones form a complete circle; and from the small obliquity of the ribs, this circle presents a great power of resistance to external pressure. But the last five ribs, called the false ribs, besides being placed more obliquely, become weaker as they decrease in length, and having no support in front, their power of resisting external pressure is possibly six times less than that of the true ribs. Hence ligatures applied to this part of the body may contract the natural size of the cavity perhaps one-half. Nature, in this instance, has intrusted the Belle with a discretionary power,—guarding against its abuses, however, by severe penalties. If she chooses to *brave the consequences*, she may always, with the help of stays and cord, produce a great change on this part of her person.

Imagine, now, what is the consequence of applying compression, by corsets of some unyielding material, to a cavity enclosing so many delicate organs, whose free action is essential to health. First, the lowest part of the shell of the thorax yields most; the false ribs, and the lower true ribs, are pressed inwards; the whole viscera in this part of the body, including part of the intestines, are squeezed close together and forced upwards; and as the pressure is continued as above, they are forced higher still. If the lacing is carried further, the breastbone is raised, and sometimes bent; the collar-bone protrudes its inner extremity; and the shoulder-blades are forced backwards. The under part of the lungs is pressed together, and the entrance of the blood into it hindered; the abdominal viscera, being least protected, suffer severely; the stomach is compressed, its distention prevented, and its situation and form changed, giving rise to imperfect digestion; the blood is forced up to the head, where it generates various complaints; the liver has its shape altered and its functions obstructed; the bones having their natural motions constrained, distortion ensues and the high shoulder, the

twisted spine or breast-bone, begins at last to manifest itself through the integuments and the clothes.

It is needless to enlarge on these details, as we shall give a list of the diseases generated by tight corsets by and by. A mere inspection of the following figures will show the unnatural change produced on the body by tight lacing.



The figure on the left exhibits the waist of the Medicean Venus, which is considered as the type of the female form in its finest symmetry; on the right you have the same form squeezed into fashionable proportions by the steam power of modern corsets. This figure on the right, we believe is not exaggerated. A single glance at these figures will show better than many pages of argument, what havoc tight-lacing must produce in the delicate and complicated mechanism lodged within the chest.

Another effect of tight corsets, is, that those who have been long so closely laced, become at last unable to hold themselves erect, or move with comfort without them, but, as is very justly said, *fall together*, in consequence of the natural form and position of the ribs being altered. The muscles of the back are weakened and crippled, and cannot maintain themselves in their natural position for any length of time. The spine, too, no longer accustomed to bear the destined weight of the body, bends and sinks down. Where tight-lacing is practised, young women from 15 to 20 years of age are found so dependent upon their corsets that they faint whenever they lay them aside, and therefore are obliged to have themselves laced before going to sleep. For as soon as the thorax and abdomen are relaxed, by being deprived of their usual support, the blood rushing downwards, in consequence of the diminished resistance to its motion, empties the vessels of the head, and thus occasions fainting.

"From 1760 to about 1770," says Soemmering, "it was the fashion in Berlin and other parts of Germany, and also in Holland a few years ago, to apply corsets to children. This practice fell into disuse, in consequence of its being observed, that children who did not wear corsets grew up straight, while those who were treated with this extraordinary care, got by it a high shoulder or a hunch. Many families might be named, in which parental fondness selected the handsomest of several boys to be put in corsets, and the result was, that these alone were hunched. The deformity was attributed at first to the improper mode of applying the corsets, till it was discovered that no child thus invested, grew up straight, not to mention the risk of consumption and rupture which were likewise incurred by using them. I, for my part, affirm that I do not know any woman who, by tight-lacing (that is, by artificial means), has obtained 'a fine figure,' in whom I could not, by accurate examination, point out either a high shoulder, oblique compressed ribs, a lateral incurvation of the spine, in the form of an Italic *s*, or some other distortion. I have had opportunities of verifying this opinion among ladies of high condition, who, as models of fine form, were brought forward for the purpose of putting me to silence."

Young ladies in course of time hope to become wives, and wives to become mothers. Even in this last stage, few females have the courage to resist a practice which is in general use, though to them it is trebly injurious. It is lamentable that mothers who have themselves experienced the bitter fruits of tight-lacing, still permit their daughters to indulge in it. There is, in truth, no tyranny like the tyranny of fashion. "I have found mothers of discernment and experience," says Soemmering, "who predicted that, in their 25th year, a hunch would inevitably be the lot of their daughters, whom they nevertheless allowed to wear corsets, because they were afraid to make their children singular."

But it is time to speak of the diseases produced by the passion for *slender waists*. "One is astonished," says Soemmering, "at the number of diseases which corsets occasion. Those I have subjoined rest on the authority of the most eminent physicians. Tight-lacing produces—

"*In the Head;* headache, giddiness, tendency to fainting, pain in the eyes, pain and ringing in the ears, and bleeding at the nose.

"*In the Thorax;* besides the displacement of the bones, and the injury done to the breast, tight-lacing produces shortness of breath, spitting of blood, consumption, derangement of the circulation, palpitation of the heart, and water in the chest.

"*In the Abdomen;* loss of appetite, squeamishness, eructations, vomiting of blood, depraved digestion, flatulence, diarrhœa, colic pains, induration of the liver, dropsy, and rupture. It is also followed by melancholy, hysteria, and many diseases peculiar to the female constitution, which it is not necessary to enumerate in detail."

But the injury falls not merely on the inward structure of the body, but also on its outward beauty, and on the temper and feelings with which that beauty is associated. Beauty is in reality but another name for that expression of countenance which is the index of sound health, intelligence, good feelings, and peace of mind. All are aware that uneasy feelings existing habitually in the breast, speedily exhibit their signature on the countenance, and that bitter thoughts, or a bad temper, spoil the human face

livine of its grace. But it is not so generally known that irksome or painful sensations, though merely of a physical nature, by a law equally certain, rob the temper of its sweetness, and as a consequence, the countenance of the more ethereal and better parts of its beauty Pope attributes the rudeness of a person usually bland and polished, to the circumstance, that "he had not dined;" in other words, his stomach was in bad order. But there are many other physical pains besides hunger that sour the temper; and, for our part, if we found ourselves sitting at dinner with a man whose body was girt on all sides by board and bone, like the north pole by thick-ribbed ice, we should no more expect to find grace, politeness, amenity, vivacity, and good-humour in such a companion than in Prometheus with a vulture battening on his vitals, or in Cerberus, whose task is to growl all day long in chains.

It may not be amiss to inform the ladies, that, according to our medical instructor, the red-pointed nose which glows, rather inauspiciously, on some female faces, is in many cases the consequence of tight-lacing.

A few days ago, another medical friend told us that he was present when the body of an elderly lady was opened, who had in her day been fashionable, and whose liver bore testimony to the fact, for it had an indentation deep enough to hold a large finger, exactly where the belt or girdle was worn in her younger days. We need scarcely add, that she died of inveterate stomach complaints, and that she was past life's meridian, but not old. In one respect, ladies who lace tightly may be said to provide against the decay of their beauty, since they take the best security against reaching *old age*, which, as every one knows, rifles woman of her outward charms.

In time past, we were ignorant enough to admire, like our neighbours, slender waists; but thanks to our medical friend, we are cured of this folly. We were wont to think that the loves and the graces played round such delicate forms; but in future we shall never see them without thinking of twisted bones, dropsy, consumption, indurated livers, fainting, spitting of blood, melancholy, hysteria, sour tempers, rickety children, pills, lotions, and doctors' bills.

As for our brethren of the male sex who are still in the bonds of error on this subject, we would refer them to the two figures prefixed, and ask them to "look on this picture and on that," and say whether, in encouraging females to ruin their health by bestowing their admiration on such forms as the one on the right, they are not patronising what is an outrage on taste and a libel on the most perfect of Nature's works. Were a woman sculptured according to the proportions now fashionable, every one possessing common sense would pronounce the figure *monstrous*. The subject deeply concerns fathers and mothers, and indeed persons of all ages and stations. Fashion lords it over the lady of quality, but the milkmaid is not beyond its influence. At this day when medical knowledge is so much diffused, surely ignorance, caprice, or chance, should not be permitted to injure health and ruin constitutions, under the pretext of regulating our dress.

Is it possible to view with gratification a practice by which the heart, stomach, lungs and liver, are compressed, distorted, and impeded in their functions? Let the reader look at the first lady with a compressed waist whom he shall see on the street, and reflect on the deep injury which her dress is inflicting on the fountains of health and vigour, and on the suffering which she is preparing for herself and eventually for her offspring; and, in particular, let him observe her stiff and constrained motion, occasioned by the compression of the muscles and nerves of the back, and try to discover a line of beauty in her contour. We venture to predict that his perceptions of beauty will undergo an entire revolution as soon as his understanding is enlightened, and that no deformity in the female person will appear more painful and striking than a slender waist.

So far Dr. Combe and the German Physiologist. Meantime, we have fashionable papers advocating tight-lacing, on sanitary as well as æsthetic grounds, not only for women, but for men, and masculine stays have become regular articles of commerce.

THE TRUE SPHERE OF WOMAN.

THE Editor of THE HERALD OF HEALTH has been favoured with the following letter from an eloquent advocate of sanitary reform and the rights of woman—a lady whom he hopes to rank among his regular co-operators and correspondents, dated—Rue de Vaugirard 49, Paris, March 27, 1876 :—

"Dear Sir,—I am greatly obliged to you for the kindness which prompts you to continue sending me your HERALD OF HEALTH. It cheers me much to see evidence of so much life in the midst of a dark, dead age like ours. This month I am particularly pleased with the paper entitled "Woman and Vivisection," which you reprint for the benefit of your readers. All that the writer says with regard to the distinctive qualities and missions of the two sexes I find admirable, and in these days greatly needed, for unhappily our 'strong-minded women' are on every hand adopting and professing the notion that their highest good is to become *like men*. I have heard them say on the platform—'Give us education, give us a field for work, give us a political status, give us the rights and the duties of citizens, and we shall become like you men in all things!' But it is not for such an end as this that I desire the emancipation of my sex. Not that woman may become man, but that she may become *more woman;* for liberty and education are necessary to her full development. Her province is that of SYMPATHY, and your correspondent is perfectly right when he appeals to her to lift up her voice against the crime of vivisection. But it is to the educated and free woman that he must look for such noble protest—not to the woman ignorant and enslaved; to the woman enjoying the fulness of her nature—not to her to whom it is per-

mitted only to act under the supervision of restraining fashions and customs. I am here in Paris educating myself slowly and painfully in the science of medicine, isolated from all that I love, for this one object and for no other; that I may add to Love, Knowledge, and so attain the right to speak on behalf of the dumb who suffer—to speak as one having authority, and not as the scribes, whom ignorance leads astray. And your correspondent—keen as his insight is—has gone astray in one particular. He thinks that 'animals were made to be the food of man.' He has written this sentence no doubt with regret, regarding the popular idea on this subject as the right one, yet feeling at heart that it goes sadly against the grain of the refined human nature. He has yet to learn that nature is harmonious, and never contradicts herself. She does not make the pure soul to desire one thing, and the pure body to need another; for body and soul are one. Man is not saved by blood. It is Love that saves and feeds and redeems and elevates. And the woman to whom it will be given to redeem the world from the domain of selfishness and to win it to the kingdom of God, will be one whose hands are clean from the innocent blood, whose heart is pure, whose eyes are clear, whose nature is *consistent throughout*, and at one with itself. She will have nothing in her daily practice to excuse, nothing that will need an apology or an explanation to reconcile it with her theories or feelings in other respects, nothing which makes discord to the ear. She who comes to redeem us from blood will be no eater of flesh. I am amused at finding the enclosed little paragraph from the *Dietetic Reformer** accredited to Professor Newman. *I* am the original writer of it.

"If you care to make any use in the HERALD OF HEALTH of the few remarks I have just penned, you are quite at liberty to do so.—Yours very faithfully,

"NINON KINGSFORD."

A CURE FOR DRUNKENNESS.—"Dr. J. Turner, of New York, declares that having become convinced that a vegetarian diet would support a person in health and strength, he put it in practice with two intemperate brothers, who were cured and restored to society; and that he has since applied it to upwards of a thousand cases of intemperance with marked success. Some patients who have been thus cured have presented him with a silver epergne, costing 500 dollars, and an illuminated address, in which they thanked him for this means of saving them from utter ruin of body and soul. Dr. Turner says he has made notes of each of the 1000 cases, sufficient to fill an octavo book of 600 pages, which he intends to bring out in England during the ensuing summer." Surely this is worth looking to. Drunkards are "patients" to be cured. Five shilling fines, and ten days' imprisonment, do not cure diseases. Preaching does not cure them. Drunkenness is a stomach disease, and a bland pure diet one of the best means of curing it.

* On Cooking Vegetables in Paris.

THE CO-OPERATIVE SANITARY COMPANY (LIMITED).

THE CO-OPERATIVE SANITARY COMPANY (LIMITED) is an assured success. We have never doubted this, because its foundations have been securely laid in the labours of many years, and in many minds and hearts. We began this work alone, and have carried it on with only the credit it brought, and the capital we were able to gather. It has grown from hundreds to thousands, and the more we have done the more we have seen to do. In the natural order every living thing gradually unfolds from its germ. As the work has expanded help has come to us, sometimes from unexpected quarters. And now that we have organised it in the convenient form provided by law, so that every one can take a part in it, with the least possible trouble and no risk beyond the amount actually invested, and that secured on property of value beyond all probable demands, we see the promise of a large and generous co-operation.

It is not that rich men contribute of their abundance so much as that the poor, who not only see, but feel the need of our work for sanitary and social reform, bring forward their hard earned savings. We were very glad when a wealthy baronet, the president of perhaps the most powerful philanthropic organisation in the United Kingdom, subscribed for a good number of shares in our company, with words full of encouragement; or when a noble lady, full of sympathy for human suffering, took the same number. Such bring us aid from their abundance, and we are very thankful for their co-operation, and know that their example will influence many more. But the earnest helpfulness of persons in a very different position in life is a stronger assurance of success.

We do not know why domestic servants should either take a more intelligent interest in sanitary science, or have more money to invest in its promotion than those of any other class on our share list, except that of gentlemen or ladies of position and fortune? One of these investors, a butler in a gentleman's family, has written to us very frankly of what he has seen of the waste and mischief of luxurious life; and a butler may have more money to invest in what he sees to be a good work than many a baronet, and, standing quietly behind his master's chair, may see more clearly the need of sanitary reform. We think, however that may be, that our readers will agree with us that a cause which enlists the sympathies and commands of the co-operation of noblemen, gentlemen, ladies, tradesmen, artisans, and domestic servants, can scarcely fail to have all the help it needs.

In regard to money, we have only to say that we can make a good and profitable use of a large portion of our nominal capital during the present season. We have correspondents in Spain and America who will watch the prospects for fruit. We can put £5,000 to £10,000 into eggs, during the next two months, so as nearly to double the investment. We shall be glad to invest £2,000 in warming and ventilation in time to supply the market next winter. Give us the means and we

promise to save half the waste of coal with a delightful warmth and perfect ventilation—to pay a good profit to investors, and a still better one to purchasers. If the patent laws of England were what they ought to be, we could describe, explain, and illustrate our inventions, and satisfy every reader of their utility. The fact of publication ought to secure the right of the inventor, as it does that of the author. On the contrary, it destroys his right. This absurd and iniquitous feature in the patent laws cannot be too soon amended. It is an incitement to rascality—a premium on peculation and plunder. This law reform must soon come, because justice demands it, and the people of this country will have what they see to be just. No people in this world are more sturdily bent upon bringing about what they see to be right, and of putting down what they see to be wrong. They may not always see quickly the right; but when they do see it, they bravely act upon their convictions. And when the English people take up any good cause, and carry it out in their solid, earnest, persevering manner, its success is assured everywhere and always, for English thought—we say English for lack of a more comprehensive word—now governs half the world, and greatly influences the other half. Few persons, we think, are more cosmopolitan than we, more free from insular prejudices, more appreciative of the fine qualities of various nationalities and races; but we must be blind indeed not to see what must be the destiny of the great peoples in both hemispheres, who spring from these islands on the western shores of Europe.

Our work is for them, and, through them, for the world. Every worthful line we write is read in America, in Australia, in India, in Africa—in the bright islands of the southern seas. Letters about our books have come to us from Canada, the Cape of Good Hope, Hindostan, the Fiji Islands. The *Herald of Health* penetrates to every land where English is spoken or read. We have subscribers in Belgium, France, Germany, Italy, India. People send copies to their friends all over the world. We ask help to enlarge and extend this work. We ask for the generous and devoted co-operation of those who wish to serve humanity, and who can do it in the way we propose without injury to themselves, and with the prospect of much benefit; for good comes to those who do good. Help us, then, by such investments in our work as you can afford. Send us the names of all persons to whom we ought to send the Prospectus of the Company. Aid in every way the circulation of the *Herald of Health*. See that all newsmen have it. Guarantee the sale of a certain number, if necessary, and circulate freely those which remain unsold. In this way some of our friends have got up large circulations. If one agent can sell 300 copies in Birmingham, and another 350 in Bradford, why should not agents sell corresponding numbers everywhere?

As the work of the Sanitary Company is of interest to all reformers, and especially temperance reformers, we have received permission to publish the following letter, received with a handsome subscription for shares, from Sir W. C. Trevelyan, Bart., the President of the United Kingdom Alliance:—

"29th March, 1876.

"Dear Sir,—The enclosed will show that I wish well to your undertaking; and I trust that your endeavours to do good will be rewarded with success. Your lectures, I have no doubt, will be very useful; and I trust that the attendance on them will encourage you to continue them as you may be able in different districts. I shall be glad if you will in future send me *two copies* of the *Herald of Health*. I like to keep one, and could always send the second where it might be of use.

"I remain, Dear Sir, with best wishes, yours faithfully, W. C. Trevelyan.

"Dr. T. L. Nichols."

HEALTH HINTS FOR MAY.

The long bright days are coming now, when we can live in the open air and the glorious sunshine, breathing and absorbing life. The great sun pours down upon us the elements of health, vigour, vitality, all around us, in leaves and buds and flowers and growing fruits; in the bright and wondrous insect world; in all birds and beasts; all effects of the light and heat which come from the great centre of our system. The sun gives us warmth, food, electricity, and the elements, at least, of nervous or vital force. Sunshine, laid up in wood, peat, and coal, warms us in winter and prepares our food. Put out the sun, and oceans would freeze, and all life quickly vanish. That which gives life itself must give health, which is only the fulness and true order of life. I believe that sunshine is one of the best medicines in the world; and that the exposure of the body to the full rays of the sun, either quite naked or veiled in light coloured garments, which will admit the passage of light, will cure many diseases. That is why it is so healthful to be out of doors—why tent life is proverbially healthful. Bright eyes, rosy cheeks, sound nerves, strong muscles, and clear brains, are all born of the sun. Music and medicine are Apollo's gifts.

From my Malvern windows I look down on four hundred square miles of fertile country, and can see thousands of pear trees and apple trees in blossom. With a good glass I can descry the billowy seas of blooming plum trees in the Avon valley, about Evesham! The air is full of salubrity. Out of my London windows the air is full of smoke; but smoke is carbon, and carbon absorbs noxious gases. Were it not for London smoke, it would not be the healthy town it is. The most transparent atmosphere may be full of deadly malaria.

Make people burn their smoke if you can; but first remove all health-destroying nuisances.

The worst malaria is the crowd poison of human beings living in close, dark courts and alleys in filth and misery.—*Herald of Health Almanac.*

Success.—I am not a believer in what has been called the "gospel of getting on." It is, for one thing, a gospel which can only be preached to a small minority. To be successful in the world's sense means to have got over your neighbours' heads; to be rich, as the word is used, means to be richer than your neighbour; and, by the very nature of the case, these are results which, if everybody aims at them, involve failure and disappointment to nine out of ten. —*Lord Derby at Glasgow.*

THE CENTENARY EXHIBITION.

Philadelphia, March 24, 1876.

PERHAPS it may not be amiss to offer, through the *Herald of Health*, a few words of friendly explanation and counsel to such of its readers as intend to honour this city by their presence sometime during the coming summer.

London, Paris, Vienna, were crowded during their great International Exhibitions; prices were high, outrageously so in the Austrian capital, and in these great centres of the Old World, and of the world's travel, many visitors were unable to secure passable shelter and accommodations. How will it be here in the New World in a city where, not so long ago, reckoning after Old World fashion and feeling, an encampment of wigwams perhaps stood in that pretty natural park where now the Exhibition buildings cover acres and acres, and where routes, if indicated at all, had no clearer guide-posts than "blazed" trees? At least, let it be remembered, we had high example if we charge our visitors "occasional" prices, or neglect to provide for them suitable food and lodging. But we hope not to need the charity of a precedent.

The best of the existing hotels have largely increased their accommodations during the past year, and of quite new hotels, or buildings altered for temporary use as such, and to be opened in the spring, there are fifteen or twenty. Of boarding houses there is a very great number, and these will be almost wholly given up to strangers. Then Philadelphia is, by means of its admirable building associations, especially the city of Homes.

Our noisier, statelier, more commercial rival, New York, runs skyward in eighth, ninth, and tenth storeys, and within its limits no family possessing an income of less than £1200 the year need dream of its own roof tree, or any sheltered domesticity. In Philadelphia the artisan earning but £200 to £300 yearly may live in his separate small dwelling, and in two-storeyed, moderate-priced, moderate-rented houses the quaker city stretches out for miles and miles, adding about seven thousand buildings annually to her growth. A great many of these homes will be given up for use as lodgings during the centennial summer, and nearly all will find shelter for three or four visitors—either family guests or paying strangers.

Then all Philadelphians not held at home by business or other duties will, after the smallest possible sacrifice to patriotism and glory, depart for cooler, quieter, more solitary regions, and many of the best, most comfortable houses in the city will then be offered for the occupation of incomers. "Boarding-house agencies" have been established, whose object it is to furnish strangers with whatever grade of accommodation is desired. They issue coupon tickets that will be for sale at the great railway stations, and on all incoming trains. The agents designate the house assigned, give instructions as to the best way of reaching it, and the arriving passenger may send his luggage without delay to his temporary home.

No city in the world could be easier for the stranger to find his way about. It lies between two rivers—the Delaware and Schuylkill. The main avenues run from river to river. Between the broad avenues the smaller streets run at right angles, and these streets are named numerically from the Delaware to the Schuylkill—1st, 2d, 3d, and so on. The city plan is like a draught-board. The avenues are numbered from intersecting street to street, so that one has but to hear a number to fix its location exactly; one knows, for instance, that 1514 Chestnut Street is the 14th door above 15th Street, 2002 Arch Street the 2d door above 20th Street—*ainsi du reste*.

In almost every street the horse cars run. The fare is light, for an additional trifle one is given a pass over any intersecting road, and in these cars one may go to almost any point within city limits. They are the vehicles to use, for cabs are non-existent, and carriage-hire enormous in all American cities. And no visitor possessed of a tongue need have an instant's doubt as to route, or any tourist wish or need. We're used, this Yankee race, to questions, and whatever our faults—and they're plentiful and uncomfortable enough—however tremendous the imperturbability and diamonds of our hotel clerks, however concise the responses of everybody here paid to answer questions, however startling the independence and composure of the "lower classes," I feel sure the candid stranger sojourning for a little amongst us will admit that the American is naturally a simple, kindly, heartily-obliging creature.

Philadelphia is an extremely hot city, and the glare from its endless lines of white shutters, white marble steps or fronts is disagreeable enough of a summer day. But it is very clean, its early Dutch settlers having bequeathed almost Brock notions of the frequency with which house fronts and pavements need be scrubbed. Drainage is good, water supply plentiful, and no visitor will be likely to find himself or herself in a house unsupplied with fixed bath. Then the ices! the frozen fruits! what is a summer day alleviated by occasional saucers of frozen strawberries, raspberries, bananas, pines, peaches, or bisque cream? and for these delicacies the world-round American vows Philadelphia to be unrivalled.

But they need not be foregone by the visitor fortunate enough to be able to choose the time of holiday, and for such an one June, September and October are certainly the months to recommend. And especially the latter ones. The air then is warm enough, crisp, brilliant; and fruits, and vegetables almost as delicious as fruits, are in overwhelming variety and abundance. Remembering the utterly aghast feeling with which one American cousin contemplated, while new to English things in general, the ordinary English greengrocer's shops, whose meagre kinds and quantities of wares made the neophyte suppose them only *sample* shops, one has a droll sense of that different astonishment likely to seize the English housekeeper walking down the crowded aisles of, say the Farmers' Market here, of a mid-September morning?

The mountains of melons, the tons of peaches and grapes, the apples, pears, plums, tomatoes, egg-plants, okra, sweet potatoes, green maize, squashes, Lima beans—what not? and in such

masses! Heaven sends more and better food nowhere, and perhaps less often than usual, in this Quaker city, does the other place send the cooks. Quakers have always known how to make themselves very comfortable on earth, and the German element here is very strong—an element not anywhere an ascetic one. The bread is good—more like French than English bread—the fish supply an admirable one.

But three meals are served daily—breakfast about 8 o'clock, dinner (usually) from 1 to 2, supper from 6 to 7. Only in ultra fashionable houses is dinner served at 6 or 7. Breakfast much like an English one—more varied perhaps, and more fresh bread or hot bread cakes of some sort; at dinner there will be more vegetables and fruit, and neither wine nor beer; at supper, or tea, there will be cold meat, hot meat or fish, some sweet cake or other, and jam. The butter in Philadelphia is the best in America—more like English butter than is elsewhere here to be found. If the English visitor will beware of ice-water, the usual pastry, the whole list of hot breads, he will avoid even temporary share in the American curse—dyspepsia, and he need by no means starve or fare ill. Fare ill? in Philadelphia? in autumn? and Jersey, Maryland, and Delaware, pouring in daily car loads upon car loads of canteloupe and nutmeg melons, grapes, and peaches, worth crossing the ocean to know the flavour and sweetness fervid sunshine can put into them!

English visitors who must come during the warmer months, or propose to spend these months wandering about amidst American scenery, need to provide for themselves some thinner clothing than they would wear during an English summer. Gentlemen need thin flannel suits for travelling and country wear; ladies should bring a travelling costume of linen, and one of serviceable silk or some light wool material for cooler days; and both gentlemen and ladies need the long linen duster, for our railways are dusty and cindery. Warm woollen wraps will be needed for nights, mountains, and October weather; but not furs, nor winter clothing.

But for the steamers, crossing even in midsummer, one can scarcely be too warmly clothed. Advice concerning this portion of the journey may not be necessary, but there are twice ten, or thirteen, maybe, long days and nights—superfluous counsel is better than the risk of discomfort easily possible to avoid. Warm clothing, then, for the voyage—hood, cloak, blankets or rugs, a flannel dressing-gown—a winter outfit, though furs may be omitted. The gown should be one that may be resigned without a pang to all that salt water, wet decks, and black rain from the drenched smoke stacks can do to it. A basket of oranges, lemons, and grapes, is a great comfort. So, too, for many who, with the carefullest diet possible on an ocean steamer still suffer extremely from constipation—indeed who perhaps owe their sole discomfort on the voyage to this cause—is a box of Tamar Indian lozenges. They are as innocent as such a remedy can be—rhubarb and tamarinds, and the pills and potions the steamer's surgeon furnishes are reported to be of the most heroic, wrecking description. An amusing book or two, a private candle and matchbox, and a Holland bag with deep open pockets about it, the central compartment for a pair of warm slippers, the others invaluable for thrusting away bottles, boxes, combs, brushes, bracelets, all the small toilet details that can scarce be managed otherwise on rough days when every moveable object is pitching wildly about, and when, what with the vessel's rolls and plunges, and interior sinkings and lurches too dreadful to dwell upon, getting in and out of one's garments in any fashion is a very serious and protracted process,—these complete the little store of essentials. A luxury is a folding chair with a back — and sea costume, chair, wraps may all be stored in the steamer company's offices at the wharf, in readiness for the return voyage. For the rest, it is better to choose one's vessel for safety and comfort first—speed being of no particular importance to the traveller for pleasure. And however quickly a cigar-shaped thing may transport one, it is not pleasant to promenade and sit about decks across which the salt water is forever flying. And the deck always—from early morn till late night in wind, fog, drizzle, as well as in fine weather, is the only safe or hopeful place for the passenger whose sailing powers are mutinous.

It takes a tremendous pull upon one's courage to get there, to stay there; but the struggle is much shorter than if one hides away in a stifling berth below decks, where every breath and smell and sound is provocation and misery.

On deck! on deck! the callous, heartless, old sea dogs are right about it—and presently one is a callous, heartless sea-dog oneself.

AMERICAN COUSIN.

DIET.—We learn that many active Temperance workers have given up eating flesh meat during the past year, and their testimony is invariably in favour of a vegetarian diet. For one thing, thirst is greatly diminished. If reclaimed drunkards avoided highly seasoned dishes and the pipe we should have fewer of them falling back into intemperance.—*Temperance Worker.*

VEGETARIANISM.—William Dunn of West Hartlepool, "as a working man, and an iron worker engaged in plate mill work," gives emphatic testimony in favour of a vegetable diet, as "the best possible food for man, let his occupation be what it may." "J. B." writing from "Hawks' Ironworks," declares, "I have puddled more and better on a vegetarian diet than I could do on a flesh diet."

LOUIS KOSSUTH.—A correspondent of the *Patrie* having lately visited the illustrious Hungarian patriot, gives the following information about his mode of living:—"Kossuth drinks a good deal of milk, and can make a meal of toasted bread sopped in milk, which he considers quite a delicacy. He appeared to be very particular as to the quality of the water he drank, and drew it with his own hands from a spring in a rough stone jug, containing about a quart, which only lasted him one meal. The splendid health enjoyed by Kossuth is no doubt mainly due to the banishment of all exciting viands and liquids from his table, and his appearance is proof of the virtues of water-drinking, so hard to be practised by the generality of mortals."

DR. NICHOLS IN BRADFORD.

THE Editor of the HERALD OF HEALTH rose at his usual hour, 5 o'clock, on the morning of March 24th, attended to his business and correspondence for six hours; took train on the Great Northern at 12; arrived at the Victoria Hotel, Bradford, Yorkshire, at 5. At 6 the chimes of the great Town Hall rang out the fine old melody, "Life let us Cherish;" and at 7.30, after a hearty introduction by Alderman West, he began his first lecture to an audience of about 600 persons in the Mechanics' Institute—taking "Life let us Cherish" for the text of a discourse on "Health, Disease, and Cure." The attention was very good, and the applause hearty, and, at the close, warm and enthusiastic.

On Saturday evening Dr. Nichols lectured at the Primitive Methodist Schools, Great Horton, about three miles from the Town Hall. These schools are quite an institution. They accommodate 700 pupils, and the great hall was fairly full. Rev. B. Wood presided, and gave very strong testimony to the value of a hygienic regimen and a daily bath, which he had not missed for many years of arduous and exhausting labour as a preacher and temperance lecturer. Certainly he is a picture of health. The lecture was on "Life: and how to make the most of it." It was received with every mark of interest and approval; and the expressions of assent and approbation at the close were very gratifying; yet the lecturer is bound to admit that he was a little carried away by the *genius loci*, and gave more time to the social, moral, and religious aspects of the subject, and less to the physical and sanitary aspects, than he intended. This, no doubt, is one of the dangers of extempore speaking. There is the liability to be carried away by surrounding influences.

Previous to the lecture there was a very nice and rather large vegetarian tea party.

On Sunday evening, Dr. Nichols spoke again in the Mechanics' Institute, on THE RELIGION OF HEALTH. J. Craig, Esq., a tall and massive Scotchman, who could speak from experience of the benefits of a simple diet, and the possibility of building up such a body and brain on considerably less than sixpence a-day, kindly presided, and an audience of nearly or quite a thousand persons listened with great apparent interest to a discourse of an hour and a half. Bradford is a serious Sunday place, and at the beginning there was no applause, but it broke out before long, and at the end there was what the Americans calls an "ovation."

This expedition to the great centre of Yorkshire industry was an experiment, and it has been fairly successful. Much of this success is due to the intelligent zeal of our excellent agent, Mr. W. Whitham, 88 Godwin Street, Bradford, who sells quantities of the HERALD OF HEALTH, and all our books and sanitary articles. If we had such an agent in every large town in the United Kingdom, our work would go on "conquering and to conquer." Mr. Whitham received most efficient aid from Mr. Wilson, who managed admirably the Great Horton lecture, and was most helpful everywhere.

Remaining at the Victoria until 5 p.m. on Monday, Dr. Nichols had calls and consultations through the day, and taking one of the rapid and remarkably punctual trains of the Great Northern, was in Museum Street before 11 o'clock, and at work at 5 next morning.

The result of this expedition must be an increased interest in Sanitary Science, a larger circulation of the HERALD OF HEALTH, an increased demand for books, &c., and, we hope, a handsome subscription to the shares of our Company. We want capital to carry on the work with energy and success. The fulcrum with which we can move the world is money. Our shares are a good investment in the best sense of the word: we think we can make them so in every sense: and that those who take them will *do good* and *get good*.

We are now ready to give a similar series of lectures in every large town where proper arrangements can be made. The way is to engage a large hall in a good place; to have three prices of admission, say 1s., 6d., 3d. Then advertise well. Don't spare printer's ink. Some is wasted, no doubt, but nothing can be done without it. We can give from Friday to Monday, and unless there is a surplus over expenses, we want no pay.

Our own impression of the effect of the lectures in Bradford, and of the desirability of having similar ones in other places, might be suspected to be somewhat influenced by personal feeling; therefore we take leave to copy a few sentences from a letter received since the above was written:

88 Godwin Street, Bradford,
March 29, 1876.

DEAR SIR,—I hope you reached Museum Street safely, and that you feel none the worse for your long journey and hard work. I can assure you that you have done a good work here. A feeling of great respect to you is rapidly spreading. People have called by dozens, and not a single person have I found yet who was not more than satisfied with you and the lectures. I do not say this to flatter you, but because it is right that you should know the truth, and I wish to say with all the earnestness I can command—go on with the lectures in all the large towns. It will be the best thing you can do, and will complete your great work in half the time it can be done in any other way. And don't forget to announce your hours for consultation. Several persons have been in yesterday and to-day who would gladly have seen you.

Well, as before said, we wish nothing better than plenty of work. There is no question about the power of "the living voice."

CO-OPERATIVE HOUSE-KEEPING.

ON Tuesday evening, April 4, Dr. Nichols gave a lecture at Quebec Hall, in Great Quebec Street, on Co-operative House-keeping, or Family Club Life, as it might be, in England. Edward Trusted Bennett, Esq., took the chair, and the lecture was followed by an animated discussion.

Dr. Nichols described the uneconomical arrangements of family life in our isolated homes, in which we get a minimum of comfort at a maximum of trouble and cost. With the present

arrangements twenty medium families require three times the necessary room, with corresponding cost for rent, and about three times the necessary service. There are nineteen superfluous kitchens, fifty superfluous fires, and everything in some such proportion, with a still larger surplus of fret, worry, bother; and the absence of much that would make life more enjoyable. Then he gave an ideal description of a Family Club, or association of families living in great comfort and elegance in a great family club-house, which combines the most perfect privacy and seclusion for those who desire them, with every social advantage, and with all the economics of co-operation and the large scale. This picture of Family Club Life as it might be will be published in full in some future number.

At the close of Dr. Nichols' lecture, Mr. Bennett the Chairman had an agreeable surprise for the audience. He announced that a Limited Company had lately been organised to carry out, as nearly as possible, the ideal life described by Dr. Nichols, and only the day before had completed the purchase and taken possession of a magnificent building at Richmond, erected for a first-class hotel, and well adapted for such a purpose. Here was practice following closely on theory. The company is composed of hopeful and energetic people, ladies and gentlemen, married and single, who are determined to test the possibilities of such a life, and so far as we know them, we are sure that they will make it delightful. It is a plan for making an income of £200 a-year give more comfort than one can usually get out of £1000. Bachelors have had the comforts and luxuries of club life long enough—so long that they get more and more averse to marriage. It is time that women should have their turn, and by uniting the attractions of the club to the comforts of home, make marriage and the family life irresistibly attractive. That this can be done, and how it can be done, we propose to show hereafter.

In the meantime, the Lecture will be repeated at our pretty little lecture-room, 429 Oxford Street; and we expect there will be very interesting discussions on many points connected with this new and important onward step in civilisation—this new and practical advance in Sanitary and Social Science.

DRINK.—In the United States there are 146,000 drinking-saloons, 128,000 school-houses, and 54,000 church buildings. The manufacturers and sellers of spirituous liquors number about 560,000, or twelve times the number of preachers, four times the number of teachers, and more than twice the number of lawyers, doctors, and preachers in the land. It is estimated, and the estimate cannot be questioned, that in the saloons in the land there are 5,000,000 daily customers, one-seventh of the entire population. Of these 100,000 are annually tried for crimes committed under the influence of liquor, and costing the country for their arrest, trial, and punishment many millions of dollars. The 29,000 distilleries make annually 75,500,000 gallons of ardent spirits, and these spirits make how much misery? It is impossible to estimate. At this point all figures fail.

ON THE BENEFITS OF GOING BAREFOOT.

A GENTLEMAN connected with the Civil Service of the Empire of India, writes to the Editor of the HERALD OF HEALTH as follows:—

SIR,—Now summer is approaching I entreat you to give me room in your widely circulated, and, I trust, friendly pages to ask why children should not go barefoot in warm weather. Against their doing so I have never been able to hear of any argument save a purely English prejudice against bare feet as disreputable. And I use the word English in the most narrowly local sense. In Scotland and Ireland the prejudice is unknown. I have been told by gentlemen of both countries how they used to bother their mothers as warm weather came on, to let them doff their shoes and stockings before what was considered proper time. In most of the colonies bare feet are to be seen, (*Vide* Major W. M. Bell's *Other Countries*, Vol. i. p. 251-315; ii. 170-289, and a letter by Mr. Henry Taylor in the *Times* of the 13th or 14th October, 1874.) In the mother country alone do we insist on children being plagued with shoes and stockings. In that the custom is a plague to children, who can doubt, who has ever seen the delight they find in running about barefoot on the shore at every watering-place? The benefits of going barefoot—straight, strong, well-grown feet, freedom from coughs and chilblains—were shown by the letters of two mothers, 'Barefoot' and 'Shoeless' in the *Standard* 13th and 14th January, 1870. The latter was able to say,—"My girls never, under any circumstances, wear shoes or stockings, except when they go out visiting at a friend's house where they are not well known, or are likely to meet strangers. . . . The girls themselves are too well pleased with the habit to leave it off. When they come home from a house where they are compelled to wear shoes and stockings, they take them off even before their gloves. They make no difference summer or winter." Secretly, I believe, many people approve of the idea of letting children go barefoot, but few have like these ladies the moral courage to resist fashion, and add practice to the actual approval. What is wanted is union, and to obtain that I now make an appeal. Would not a number of mothers relieve their children of shoes and stockings this very summer, if only they knew others were doing so. Will not somebody come forward now, and receive the names of all mothers who will let their children go barefoot this summer. I would willingly do so, but I am not resident in England, but in a country where bare feet are the rule; and well grown feet constantly make me ashamed of my

CROOKED TOES.

[We remember seeing, on our only visit to Glasgow, a young lady on the platform, nicely dressed, with a long black ostrich feather in her hat, her petticoats not too long, and not a sign of shoes or stockings.]

A HEARTY NOTICE.—A capital number of the HERALD OF HEALTH to hand. This excellent penny monthly we have before called attention to. Every one may read it to profit. The simple lessons, if followed out, will tend to the health, happiness, and general wellbeing of the people. Dr. Nichols has done great service to humanity, and we wish him success in his noble work. We are pleased to find his works are read by thousands.—*Monmouthshire Chronicle.*

THE OLD FOLKS.

Ah! don't be sorrowful, darling;
Ah! don't be sorrowful, pray;
Taking the year together, my dear,
There isn't more night than day.

'Tis rainy weather, my darling;
Time's waves they heavily run;
But taking the year together, my dear,
There isn't more cloud than sun.

We are old folks now, my darling;
Our heads they are growing grey;
But taking the year all round, my dear,
You will always find the May.

We have had our May, my darling,
And our roses bloomed long ago;
And the time of the year is coming, my dear,
For the silent night and the snow.

And God is God, my darling,
Of night as well as day;
And we feel and know that we can go
Wherever He leads the way

Ay! God of the night, my darling,
Of the night of death so grim;
The gate that leads out of life, good wife,
Is the gate that leads to Him.

One of the "Objects" set forth in the "Memorandum of Association of the Co-operative Sanitary Company, Limited," is—"To build, furnish, hire, or acquire and maintain a Sanatorium, with all suitable appliances." If the wealthy temperance men and women of this country will take up our shares, so as to furnish the capital for such a Sanatorium, we will engage to cure every case placed under our control. Hereditary cases are, no doubt, difficult of cure. There is danger of relapse. But when once the tendency to drunkenness is recognised as a physical infirmity, a real disease, we have only to find the right method of treatment; but that will not readily be found by doctors who puff "spécialité sherry," or medical and sanitary journals that advertise and highly commend "encore whisky," —a sort of *encore* we have had a great deal too much of.

An American Governor.—The Burlington (Vermont) *Free Press* relates the following anecdote of Governor Peck, of that State: "Near his home, in Jericho, live a poor old couple, to whom the struggle for life is a hard one. Recently the husband was laid up by an accident, and as Governor Peck was passing the house the other day, he saw the old lady endeavouring to saw and split some wood, furnishing the piteous spectacle a woman always does under such circumstances, and achieving the degree of success usual when the softer sex stoop to conquer a wood-pile. The Governor promptly interfered, attacked the wood with the impetuosity and vigour of a youth of twenty, and sawed and split a large quantity, to the intense delight and happiness of the aged couple. It is rare that large wealth, exalted position, profound learning, and innate kindness of heart are united so happily as in Governor Peck."

Sanitary Legislation.—We have cut from a publication we cannot now identify the following statement:—"During the present century from 20 to 40 millions of public money have been expended in sanitary works for the purpose of improving the public health and reducing the rate of mortality. Scores of thousands annually are likewise paid for inspection of factories to see that women and children are not overworked or employed at unseasonable hours. In spite of all this outlay of capital and sacrifice of income, the rate of mortality has increased. The growing youths are becoming more 'weedy,' so that after half a century of peace, with double the population, we are now talking of the necessity of having recourse to the ballot to fill the ranks of the militia, in the perhaps vain hope that drafts may volunteer therefrom into the regular army, sufficient to keep up the force required to guard our shores and Colonial possessions!" If this be true, it is very sad and very bad. But it must be remembered that most of this legislation and expenditure has been in accordance with the advice and under the direction of men who confess to an almost entire ignorance of medical science and medical art, and men who have also a professional interest in the prevalence and continuance of disease, who do not know the best methods either of prevention or cure, who, in multitudes of cases, poison the people they are paid to cure, who inflict diseases oftener than they prescribe remedies, and who are shielded by Act of Parliament from all responsibility. No doubt there are members of the medical profession who are enlightened philanthropists, and such are worthy of all honour; but it is equally true that there are great numbers sent forth by our medical colleges, hardened by vivisection, encouraged by legal protection, who are simply a curse to any community that trusts to their science, and has faith in their infallibility.

Infant Mortality.—One third of the children born of the middle and working classes die before they reach the age of eleven months, and one-half before the age of five years; and as regards the adult population of our country, the progenitors of the future, terrible to contemplate, do not live out half their days. That drugging, ignorance of hygiene or the laws of health, and want of the application of a higher order of mind to the well-being of society are the main causes of the evil, we are compelled to admit, nor is there any other way of removing it but through increase of knowledge among the people generally.—Dr. Skelton.

The British Empire.—Twenty-five written and various unwritten languages are spoken through the British colonies. There are about 5,000,000 Hindoos, 20,000,000 Mahomedans, 10,000,000 Buddhists, and millions of other idolators of various descriptions, in the British foreign possessions. The whole population is estimated at 120,000,000. Of these not more than 25,000,000 eat flesh abundantly, about 10,000,000 sparingly, 24,000,000 occasionally, and about 70,000,000 live principally on vegetables and fish. About 34,000,000 make wheat, oats, and barley their principal granivorous feed; 19,000,000 potatoes, pulse, and other vegetables; and 10,000,000 rice, maize, millet, &c. About 10,000,000 drink wine frequently; 25,000,000 malt liquors; and 60,000,000 chiefly water.

A MISSIONARY REPORT.

"SIR,—I return you thanks for your kindness in sending me a copy of your valuable paper, THE HERALD OF HEALTH. It came to me through the London City Mission. Being one of the agents in connection with that important and useful society, I daily witness the need of a great dietary and sanitary reform. Your teaching on these subjects is just the *sine qua non*. I have derived benefit from the reading of your paper. I take it in regularly. It would be a great boon for men in my capacity to be in the possession of all your valuable works; but that is about impossible, as we have but little money left for literature when we have provided for our families from a small salary. We work in love, and wait for love's reward. Receive my thanks. I could tell much of 'wilful waste and woeful want' even among the poor.—I remain, Sir, yours truly,

"A CITY MISSIONARY."

[For the benefit of all who cannot buy our books, we are going to establish a SANITARY LENDING LIBRARY, from which any one can get them at 3d. a week.]

A LIVE PREACHER is the Rev. Dr. Talmage, of Brooklyn, New York. Here are some bits from a sermon on Samuel:—

"Many a candy-fed, saucy child, neglected by his mother, sallies out from his home to be overcome by the first temptation. Whence came the men of most illustrious memory? whence, if not from hard knuckle and home-spun! On the other hand, whence are those men who stand as loungers about the bar-room, men of low birth, vulgar speech and brass breastpin, unless from mothers who were street-gadders, scandal-mongers, and who had charms to keep away witches and spooks out of the churn? The eaglets in their eyrie, the kids climbing the hill-sides, and the whelps of the lion in the desert, are trained in the same way they were a thousand years ago. Whipping and the dark closet do not exhaust the entire round of domestic discipline. Many a child has gone home to glory that never had his ears boxed. If mothers knew more of dietetics, there would be fewer weak stomachs; if more of physiology, there would be fewer cramped chests and curved spines."

PREVENTION BETTER THAN CURE.—Many towns long reputed unhealthy, have become as healthy as any under the sun, as soon as wise sanitary measures have been carried out. Take Hong Kong as an instance, and a most remarkable one. In the years 1842 and 1843 the deaths amongst our troops ranged from 19 to 22 per cent., that is to say the death-rate per 1000 was between 190 and 220, a perfectly appalling sacrifice of life. In 1845 as the result of better accommodation being afforded to our unfortunate soldiers, the death-rate was reduced to 85 per 1000. Subsequently, when model barracks were erected, the number of deaths fell under 25 per 1000, a result which showed that the climate of the place was not the only thing to blame.—*Dr. Crispi in the Crusade.*

MEDICAL INFALLIBILITY.—Although the public run after doctors, and obey them as if there were no question of their science and skill, the doctors themselves are not so sure of either. Dr. Broadbent, for example, a distinguished medical lecturer and writer, as reported in one of the medical journals lately:—"After glancing at the present state of our knowledge, and showing how limited was our acquaintance with physiology, both normal and morbid, said that our greatest deficiency of knowledge lay in regard to treatment. We have so little of what is called a rational or scientific system of therapeutics: our methods of treatment are all based so much on mere experience. The ideal of therapeutics which Dr. Broadbent looks forward to 'is one in which the treatment will be directed by an exact and precise knowledge of the physiological and therapeutical action of remedies.' That this knowledge will be attained in course of time is very probable—nay, almost certain." And after such a confession, our paternal government sends people to prison for not sending for doctors who declare themselves to be profoundly ignorant of the first principles of the art of healing!

THE HERALD OF HEALTH for February gives portraits and biographical sketches of Professor Newman, Mr. Isaac Pitman, Mr. John Davie, and Mr. W. G. Ward—four leading vegetarians. In the introductory portion, the writer of the article points out that animal food is not of absolute necessity to man; that the Scotch and Irish contrive to rear some of the finest specimens of humanity in the world on vegetable diet; and that when the former race abandon the old fashioned oatmeal porridge in favour of the modern dietary of butchers' meat and tea, they show unmistakeable symptoms of degeneracy. In one of our oldest Scottish ballads the fact is alluded to regretfully thus:—

> But noo since the Thistle is jined to the Rose,
> An' the English nae langer are counted oor foes,
> We've lost a great pairt o' our relish for brose

—an article of diet upon which our brawny Highlanders thrive amazingly. We remember of an English nobleman who, whilst travelling in Scotland with his son, a very delicate youth, was so struck by the ruddy glow of health on the cheeks of a ploughboy that he drew up and asked the lad what he had for breakfast every morning. "Brose," answered he. "And what for dinner?" "Brose," was the reply. "For supper?" "Brose; and what better meat could ye wish for?" returned he with the greatest surprise. The nobleman resolved upon boarding his son at the farm-house where this rustic lived, and on his return six months afterwards found the hope of his house so much improved in *physique* that he made up his mind to settle in that part of the country. And he never had cause to regret his choice.—*Sheffield Post.*

WORK.—We hear a great deal now and then of the mischief done to health by overwork; but I suspect, if cases of that kind come to be looked into, the mischief is generally due to mismanagement rather than to actual mental labour. Worry and excitement and anxiety as to results, and nervous impatience to finish a task undertaken in haste, may often hurt, and sometimes kill; intellectual exertion by itself, pure and simple, seldom, I believe, has injured anybody. —*Lord Derby at Glasgow.*

LEGAL AND COMMERCIAL INFORMATION.

I.O.U.'s are received in evidence as acknowledgment of debts.

An I.O.U. is invalid if a promise to pay at a certain date is added to the acknowledgment of debt. In such a case it requires a stamp as a bill or promissory note.

The penalty attaches only to a person giving a receipt on unstamped paper.

A man marrying a widow takes her liabilities.

A husband is not liable for his wife's debts, if a suitable provision has been made for her.

A Judge's order is not superseded by the Statute of Limitations.

The Statute of Limitations does not avail a debtor living beyond the seas any part of the time.

Waste Land by the side of the road belongs to the adjoining freeholder, or the Lord of the Manor.

Copper coin is not a legal tender beyond 1s., or silver beyond 20s., but gold may be tendered to any amount.

A person giving a false character with a servant renders himself liable to an action.

Wearing apparel and tools, to the amount of £5 in value, are protected from seizure under an execution from the County Court.

A creditor under £5 is not entitled to a notice from the Bankruptcy Court; the debt being scheduled is a bar to future action.

The treasurer of an enrolled Society becoming bankrupt, the members have a prior claim for the funds he had in hand.

To ensure more than £5 interest, the sum agreed upon must be written.

Tradesmen cannot be compelled to sell their goods at the prices marked in the windows.

A codicil to a will must be signed and attested in the same way as the will itself.

Legatees under a will should not be witnesses to its execution, as the legacy is thereby rendered void.

Persons exposing fireworks for sale without a licence are liable to a penalty of £5.

An action may be sustained in the County Court for defamation of character.

Persons may be married at any time within 3 months after the publication of banns.

A contract for hiring and service need not be in writing, unless for more than a year.

The rules of a Loan Society must be submitted for certificate to Mr. A. K. Stephenson.

An income tax collector is bound to demand the money only once.

Advertising the sale of property left with you, to defray expenses, will not render that course legal.

A master is not bound to pay his apprentice wages during illness or absence.

Registration of birth answers all the purposes of baptism as regards property.

A father can be compelled to pay for reasonable necessaries supplied for a son under age.

A husband is liable for debts contracted by his wife before marriage.

One-half of the personal property of an intestate, dying without children, goes to his widow.

No master can require more than reasonable hours of servitude from an apprentice.

It is not necessary that an apprenticeship indenture should be drawn up by an attorney.

All Courts allow a defendant to appear in person, if poor.

In County Courts a debt is not proved by an entry in the books of the vendor. A man's books are not evidence in his favour.

A man's books may be evidence against him—as, for instance, if he sues a father, and the books show that he gave credit to the son.

The fee for searching Parish Registers is 1s. for the first year, and 6d. for the next, and 2s. 6d. for a copy of such register.

A will need not be drawn by a solicitor. It is the proper attestation, not the phraseology, that gives validity. It must have two witnesses.

[*Every reader of the above has got his shilling's worth!*]

EFFECTS OF A MODERATE DIET.

A Young Frenchman has kindly copied for the Herald of Health the following extract from *The Popular Encyclopædia*, vol. i., p. 11 :—

"Abstinence. In medical writings various instances are recorded of persons who have employed abstinence as a means of curing or alleviating severe chronic and painful diseases, such as cancers, ulcers, obstinate headaches, &c.; and a book is in existence, written by Cornaro, a nobleman of Venice, giving a very extraordinary account of his own particular case, and of the great benefit he had derived from the employment of abstinence. Having been, at the age of forty, abandoned by his physicians, who pronounced his recovery hopeless, he gave up medicine and betook himself to a very spare regimen, by means of which he was enabled to vanquish all his complaints, and attain to the age of ninety-nine years, thereby passing the latter half of his life in a degree of ease and comfort which he had never before experienced. Few persons, probably, are aware with what facility life may be supported upon a very slender diet. The primitive Christians of the East, who were induced to fly to the desert to escape from their heathen persecutors, attained to very advanced periods of life, living cheerfully and healthily upon a daily allowance of twelve ounces of coarse bread, with a beverage of water only. In this manner it is recorded by Cassian that St. Anthony lived to the age of 105; James, the hermit, to 104; Arsenius, tutor of the Emperor Arcadius, 120; St. Epiphanius, 115; Simeon, the stylite, 112; and St. Romuald, 120.

"Buchanan, the Scottish historian, has recorded that one Lawrence, his countryman, reached the great age of 140 years by the force of temperance and constant exercise. And St. Kentigern, called also St. Mungo, another Scotsman, is recorded by Spottiswood to have lived to the very extraordinary, and indeed incredible, age of 185 years by the same means. On the whole it may be safely asserted that none have ever attained to a very advanced age, such as a century and upwards, who have not been in the habit of practising abstinence.

"It is true that many persons have irreparably injured their constitutions by excessive parsimony; and it has been said that those who, either from design or accident, have fasted too long or too often, seldom enjoy good health afterwards; but this can only apply to such as absolutely fast altogether, not to those who are only very moderate in the use of food."

The history of the world is full of evidence of the healthfulness of a pure, simple, and very moderate diet.

CHILDBIRTH WITHOUT PAIN OR DANGER.

By T. L. NICHOLS, M.D.

The substance of the following paper was first written about twenty-five years ago for the American *Water-Cure Journal*, and afterwards reprinted and widely circulated as a tract. A large portion of whatever credit may be due to it belongs to Mrs. Nichols, who was, so far as I know, the first to lay down the principles and carry out the practice of hygienic obstetrics, and who has treated of the same subject in "A Woman's Work in Water-Cure."

The pain and perils of childbirth are too well known in England and America. At one time in almost every fashionable novel the hero or heroine had lost his or her mother in the hour of birth; and the great world seemed full of widowers, each left with a half-orphaned, only child. We cannot wonder that there is a common impression that gestation is, of necessity, a period of disease and suffering, and that parturition is inevitably a painful and dangerous process. This belief, it must be admitted, seems to be lamentably justified by experience. Amid the depravities of civilisation, there are comparatively few women who escape nausea, vomitings, and other symptoms of a deranged nervous system, during the period of pregnancy; few who do not suffer long agonies in childbirth. A painful labour of six to ten hours, with a full month's close confinement after it, is called a "good time"; and labours of twenty-four and forty-eight hours are by no means unfrequent. And though death, as the immediate result of parturition, is comparatively rare, it is still frequent enough to be recognised as no improbable event. Women die every week, every day in childbirth, and vast numbers suffer terribly and needlessly. This suffering is believed to be the ordination of Providence, and in accordance with the curse pronounced upon our first parents, because of their transgression of the Divine command.

The sentence, or curse, or prediction, is contained in the 16th and 17th verses of the third chapter of Genesis:

"Unto the woman he said, I will greatly multiply thy sorrow and thy conception; in sorrow thou shalt bring forth children; and thy desire shall be to thy husband, and he shall rule over thee.

"And unto Adam he said, Because thou hast hearkened unto the voice of thy wife, and hast eaten of the tree of which I commanded thee, saying, Thou shalt not eat of it, cursed is the ground for thy sake; in sorrow shalt thou eat of it all the days of thy life," &c.

Now the curse of the ground has not hindered inventions in agriculture, until portions of the earth have been converted into new Edens; and if Adam ate his food in sorrow, with the loss of Paradise, an ever-present and embittering memory, this has not hindered millions of his posterity from eating their food with gladness and festivity. So of Eve; every conception may have been to her a new sorrow when she thought of the heritage her offspring had lost. She may have sorrowed to bring children into a world cursed by her disobedience; but to her posterity conception has often been a joy, and the birth of a child, though painful, an event of exceeding happiness. It is very plain that the text in no way justifies the common notion concerning it; for were it a law that childbirth should be accompanied by pain, it is a law daily and continually violated, and one which I intend to show can be so far set aside that pain in childbirth, instead of being the rule, shall be the rare exception.

This immunity from suffering is not a thing unknown. Throughout the world, now and in all times, just in proportion as women have lived according to the requirements of nature they have been exempted from this supposed punishment of original sin. If painful labour were a curse on Eve, resting on all her posterity, what should exempt the women of savage life, the negro slave, or the healthy and hardy peasantry of Europe, from its operation? The Indian woman, living in the open air, a stranger to the weakening refinements of civilisation, knowing nothing of dyspepsia or hysterics, with no idea of spinal disease or prolapsus uteri, when she feels the signs of coming labour, repairs to the nearest brook, gives birth to her child, it may be amid the snows of winter, washes it and herself in cold water, and is ready to resume her journey without hindering her party more than half a day. The women of nature have no such word as "confinement"—a word so appropriate in civilisation. In "Brydone's Tour in Sicily" the traveller says that childbirth there was painless as a rule, and that the happy mother was able to receive the congratulatory visits of her friends the day after; and Lady Mary Wortley Montague gives a similar account of the ladies of Constantinople.

The great truth to be learned by everybody is, that gestation and parturition are natural processes. It is as natural for a woman to bring forth children as for a shrub to produce flowers and fruit; and her organs are as naturally adapted for the purpose. In a state of health no natural process is painful. Pain is, in all cases, the sign of disease. It has no other use or significance. With a sore throat it is painful to swallow; with a diseased stomach digestion is painful; so is childbirth painful to a diseased nervous system, but never to an entirely healthy one.

There is no more certain fact in physiology, than that the nerves of organic life, in a healthy condition, are not susceptible of pain. They acquire a morbid sensibility in disease. Thus all the involuntary functions of life are carried on without our consciousness. We breathe, sleeping and waking, without effort or pain, until some portion of the respiratory system becomes diseased, and then each breath may be a labour and a pang. So the strong heart works on, year after year, expanding and contracting its four receptacles, and pouring the tide of life through a thousand channels, and we are never conscious of the working of this wonderful engine until some of its apparatus becomes impaired by disease. So the stomach receives the food, expands, contracts, keeps up a churning motion, and for many hours every day labours in the function of digestion. No healthy person is conscious of even having a stomach, but the poor dyspeptic knows it to his sorrow. It is the same with the alimentary canal, with the liver, the kidneys, the bladder, and not less so with the uterus. Conception, gestation, and parturition are the natural functions of this organ and its appendages; and nature has made no mistake in adapting it to its proper work. Its nerves, like those of the stomach, the heart, and all the nerves of organic life, are not nerves of sensation in their healthy state; and it is only in their diseased condition that they are liable to pain. In its healthy condition, the uterus receives the germ of a new being, provides it with its proper nourishment, expands to make room for its development, and, at the time appointed by nature, dilates its opening, and contracts, by a series of involuntary and painless muscular efforts, so as to throw the infant into the new existence which its growth demands. It performs its own proper functions, just as the lungs, the heart, or the stomach perform theirs; because it was formed by the same Infinite Wisdom and Goodness, who ordained that pain and sorrow should be the consequence of sin, and who ordains that health and happiness shall ever be the result of obedience to the laws of life.

It is not credible that any natural function should be attended with pain in a healthy state of the system. All nature protests against such an idea—all experience is opposed to it. Causes and effects are too well adapted to each other—ends and means too admirably fitted. This world is the work of infinite power and benevolence, and the human system is the masterpiece of all this fair creation. It is not to be supposed that the most important of all the functions of the most perfect of created beings, of whom we have any knowledge, should be subject to inevitable pain and peril in its performance. Such a belief is an insult to Providence. When God looked upon His creation, and pronounced it good, He could not have overlooked the most important function of His last and most perfect work; and there can be no question, that in the original creation of woman, she was fitted to obey the command, "increase and multiply, and replenish the earth," without peril or pain. The very idea of the curse inflicted upon her carries with it the belief that she was originally created perfect in this particular. Has there been any change, then, and if so, what is its nature?

There is no more reason to believe that the bony pelvis has changed its form, than that the head or chest have been altered in their relative dimensions. On the contrary, in all healthy subjects the size of the pelvis is now found to be admirably adapted to the size of the fœtus, at the period of its full development. There is no more reason to suppose that the uterus is by nature less adapted to its functions than the eyes or ears are to theirs. No—nature has not changed; woman is, in her healthy condition, the same glorious being that she was when she first came from the hands of the Creator.

What then has made the change? Why is woman subjected to all her pains, sufferings, outrages, and perils, in the performance of the great function of her life? It is because the forbidden fruit of enervating luxuries and excesses is continually eaten. And just in proportion as women transgress the laws of nature, which are the real and unquestionable commands of God, just so far are they subject to the curse.

Man has it in his power to incur all direst curses by transgression; or to avoid all curses and invoke all blessings, by obedience to the divine law. Industry makes of the barren earth another Eden. Temperance and cleanliness give health and happiness in all the duties of life. Indolence, self-indulgence, voluptuousness, and all sins against the laws which God has written in the structure of our bodies, bring with them the curse of deranged nervous systems, broken health, irregularity of function, disease, pain, and premature death. Every woman is an Eve, and forbidden fruits are all around her. If she listen to the voice of the beguiling serpent, hers is the woe. But on the other hand, faith in God, obedience to his laws, and living in harmony with his works, assure to woman health, and safety, and joy, in fulfilling all her destiny. These are truths as incontrovertible as the principles of nature.

By the immutable laws of nature, the sins of parents are visited upon their children to the third and fourth generation; and as the result of either ignorant or wilful wrong-doing, many women are born weak: some with bodies imperfectly developed, and with tendencies to spinal and pelvic deformities, forbidding the possibility of healthy and natural labours. All such women must suffer; but even to them, obedience brings its rewards, and their condition can be greatly improved, and in most cases their unfortunate liabilities lessened.

We know that the blood in our lungs and skin requires the free access of pure air, from the first moment of independent life; yet great numbers of women are smothered and poisoned all their lives. While they should breathe pure air, day and night, at all times, they are continually deprived of it. In the curtained cradle—the close bed-room—the heated nursery—the crowded school-room—the unventilated church, ball-room, theatre—the blood never gets its share of oxygen, and the whole system becomes loaded with impurities. Every organ is weakened and every function deranged. What can we expect

but disease and suffering from such violations of nature?

Activity is a great law of our being. Heart, and lungs, and all the alimentary and excretory systems are ever at work; and it is the evident intention of nature, that every faculty of the mind, and every voluntary nerve and muscle of the body shall have its seasons of activity and repose. Exercise, full and varied and abundant, is a condition of health. Do our women get it? Imprisoned in school-rooms, drilled into proprieties, taught to dawdle in drawing-rooms, made to knit, and sew, and embroider, when they should run about the fields, or work in gardens, they are deprived of varied and healthful exercise; or, on the other hand, compelled to labour from morning till night at severe and monotonous employments, they break down with over-exertion. Either as the doll-baby or the slave of civilisation, woman is wronged in her whole nature, and suffers for the wrong; and all society suffers with her.

The right performance of all the functions of life depends upon their harmony. If one vital organ be impeded in its action, the whole system suffers; and there is no more vital organ than the skin, which requires air and light, and especially cleanliness. It is hard to imagine that any woman neglects the law of cleanliness; but no woman can really be considered cleanly, delicate, and refined, who neglects the daily ablution of her whole body. Whatever hydrophobic doctors may say, a daily bath is to every woman the condition of decency, of comfort, of health, and of beauty, which health alone can give A daily bath is more needed at periods when it is oftenest neglected than at other times. It is never more required than during pregnancy; it promotes wonderfully the ease of parturition, and is the great restorative provided by nature, and sought by instinct, even among savages, as soon as this work is accomplished.

A pure nutrition is an indispensable condition of healthy development and action. No nervous system can retain its integrity when loaded down by the poisons of tea, coffee, tobacco, alcohol, spices, and drugs. No woman can partake of this forbidden fruit without experiencing the curse—the curses of her sex. There cannot be a disordered stomach without a weakened uterus. Every indulgence in stimulating food and narcotics is a draft upon the capital of life, to be paid with a heavy interest of pain.

Even in dress, women have sinned against nature with a strange perversity. I never meet a young woman in the street, with a waist laced into half or one-third its natural dimensions, without a sigh of pity at the thought of the terrible penalty she must pay for such unnatural folly—such ridiculous depravity; for in what can human depravity be greater than in the profanity of marring the works of God? In a chest and abdomen so compressed, neither lungs, nor liver, nor stomach, nor intestines can perform their functions. The system cannot receive a healthy nutrition, the blood cannot be purified, and what then can be expected of the crowning function of life?

The system of reproduction suffers from every violation of the laws of health, and from every injury to the organs of any other function; but it suffers above all from the irregular or excessive action of its own organism. Stimulated to premature development and excessive activity by all the luxuries of artificial life, the reproductive system is broken down, its health destroyed, and what should be the happiness, the delight, and glory of woman, becomes her dread, her misery, and her despair. The nervous systems of both sexes are too often wrecked ignorantly at an early period, and those of women suffer also from excess which they seem unable to prevent, and which must be ignorantly inflicted, because no man worthy of the name would knowingly and wilfully inflict injury upon a woman he loves, and whom he has sworn to protect and cherish.

And when one, or several, or all these causes of disease produce their legitimate effect upon the female constitution; when pallor and languor take the place of rosy health and energy; when there come loss of appetite, and nervous palpitations, and hysterical sobbings; when there is suppression of the menses, or painful menstruation, pain in the back, a sinking of the stomach, a dragging sensation between the hips; when to these symptoms of nervous and uterine disorder are added whites and falling of the womb, medical aid must be resorted to, and then begins, too often, a new catalogue of wrongs and abuses.

Thousands of women, especially the young and delicate, suffer years of torture before they can be forced to seek for medical advice, and no one can blame them who knows anything about the treatment women are subjected to at the hands of many of our so-called regular physicians. I wish to treat the profession with courtesy, but I must also treat it with justice. I am therefore compelled to say that there is throughout the medical profession, with but few exceptions, a deplorable ignorance of the causes, the nature, and treatment of female diseases. I do not blame men for this—it is their misfortune, and the misfortune of those who rely upon their skill. Books, and professors, and practitioners, are alike in the dark. But there is something worse than mere ignorance. Where men do not know what to do, and are called upon to do something, they are very likely to do wrong. Thus women are drugged into an aggravation of all their evils; they are outraged by frequent and useless examinations; they are made to wear useless or hurtful mechanical contrivances, the most miserable of all palliatives; and to crown the whole, they are leeched and cauterised day after day, and week after week, until death itself would be a welcome refuge from their sufferings.

The diseased condition of civilised women, and the general ignorance of the nature, causes, and proper treatment of their diseases, have exposed the sex to the most odious and mischievous quackeries. Our chemists' shops are filled with pretended remedies; and women are made to wear irritating pessaries, supporters, and other instruments of torture. Regular practitioners grow rich, and quacks make rapid fortunes by these devices. Scores of instruments

have made fortunes for their inventors which have only tortured and injured those who have worn them; and the medicines which have enriched their vendors are as useless, and some, perhaps, almost as mischievous.

The whole system is ignorant or corrupt, and in either case barbarous. There are comparatively few cases of female disease where an examination is called for, and in these a single examination is all that is necessary. The exposure, from which sensitive women suffer more than death, is all the worse because it is unnecessary. There is not one case in ten where doctors pretend to find, or where they honestly think they do find, ulceration, or schirrous, or cancer of the womb, that they really exist. There is not one case in a hundred where they apply lunar caustic that it is needed, even by the rules of their own system; and no man needs to burn when he knows how to heal. These caustic doctors are like the other quack who made every kind of sore a burn, and then sold his salve to cure burns.

If such be the "regular" treatment of female diseases, what are we to expect when the physician comes to the bedside of the parturient woman? We have here the same unnatural and often outrageous treatment. Here, where august Nature should reign supreme, her laws are too often violated, and all her teachings set at nought. Instead of preparing a woman to go through the process of labour with all the energy of her vitality, she is weakened by medication; and blood-letting a few years ago was a common practice. Instead of being put upon a proper regimen, and a diet suited to her condition, she is more than ever pampered and indulged. And when labour comes on, the chances are that it will be interfered with in the most mistaken, the most unjustifiable, and too often most outrageous manner. The uterus will be stimulated into excessive and spasmodic action by the deadly ergot; and if a weakened and deranged system does not act as promptly as the doctor wishes, he proceeds to deliver with instruments, with the risk, often the certainty, of destroying the child, and very often inflicting upon the mother irreparable injury.

A fashionable physician finds a patient in labour; he looks at his watch and says this child must be born in an hour; and if the labour does not proceed rapidly enough to suit him, he administers the dose of ergot, which he always has ready. Frightful contractions ensue; the birth of the child is accompanied with rupture of the perineum, inversion of the uterus, or, at the least, is followed by terrible prolapsus; and it sometimes happens that such treatment causes death by rupture of the uterus. There are others who, if a labour is protracted, instead of waiting for the operations of Nature, and aiding her efforts by gentle and justifiable appliances, proceed to drag the infant into the world by the forceps, or plunge a perforator through its skull, or tear its limbs piecemeal from the abused and tortured victim of such barbarity. It is but justice to state that these practices have been pointedly condemned by some of the most distinguished men in the profession. Professor Bedford, of the University of New York, has very severely criticised many of these abuses; and Marshall Hall, one of the most distinguished medical writers in Europe, in denouncing frequent examinations and the abuse of the speculum, in the *Lancet*, says;—"I have seen cases in which the speculum and caustic having been employed—and unduly employed, as I believe—the patient remained more miserably afflicted in mind and body than ever, and this the effect of that treatment. I will not advert even to the epithets which have been applied to the frequent use of the speculum by our French neighbours, who are so skilled in these matters; but I will ask, what father amongst us, after the details which I have given, would allow his virgin daughter to be subject to this 'pollution'? Let us, then, maintain the spotless dignity of our profession, with its well-deserved character for purity of morals, and throw aside this injurious practice with indignant scorn, remembering that it is not mere exposure of the person, but the dulling of the edge of virgin modesty, and the degradation of the pure minds of the daughters of England, which are to be avoided."

These outrages have been borne because women have been so strangely ignorant of the laws and functions of their own beings, that they have not known how they were abused; and because, in pain and sickness, and in the hour of peril, these doctors have been their only resource. It is not necessary to go further into this matter. Every one knows that the ailments and diseases peculiar to women occupy a large portion of the time of the medical profession; and every one ought to know that here, as elsewhere, "prevention is better than cure," and assuredly better than the treatment which prolongs and aggravates the disease. The remedy for all this misery is to be found in the simple, natural, hygienic system of diet, regimen, and treatment we have advocated in THE HERALD OF HEALTH, and in all our sanitary writings. When women are born with good constitutions; when they are nourished on pure and natural food; when they are allowed to breathe pure air and enjoy healthful and strengthening exercises, neither kept in languid idleness nor worn out with protracted toil; when their bodies are purified and their nerves invigorated by the daily bath; when their sexual organism is never unduly stimulated nor overtasked; and when, during the whole period of gestation, they are left free to this kind of natural training and preparation for the great event of woman's life, there will be an end to its pains and perils. The rapidity and certainty of its remedial action in acute, and its power over chronic, diseases; its simplicity, its universality, its harmony with nature, have attracted to hydropathy the sympathy and confidence of all intellectual persons who have given the subject the least examination.

The most brilliant triumphs of water-cure have been and are to be achieved in the treatment of the diseases of women, and in carrying them safely, and, as far as can be, painlessly, through the period of gestation and the processes of parturition. The treatment of female diseases by the water-cure is all that the common system is not, in its *rationale*, its processes, and its results. It looks to the causes of disease, some of the

principal of which I have already enumerated, and does not insanely set to work in the hope of removing an effect while the cause is allowed to continue. It surrounds the patient with all the conditions of health, and, trusting to the recuperative energies of nature, aids them by the processes of art; and by adapting its processes to the nature of the disease and the condition of the patient, effects a thorough and permanent cure.

In bringing about a cure, it may be necessary to excite the action of the skin by the wet sheet pack and the douche; we may have to cure the dyspepsia, the liver complaint, or the spinal disease, which is at once the cause and the complication of the uterine difficulty; we support the falling womb with the wet bandage; we give tone by frequent sitz baths and vaginal injections; in a word, we give health, and strength, and energy to the whole system, and cure all its disorders.

In the adaptation of water-cure to the conditions of pregnancy and child-birth, its efficacy comes so near the miraculous that I hardly expect to be believed. The water-cure preparation for child-birth is to establish the highest condition of health. We prevent the nausea and vomitings of a diseased nervous system; we continually strengthen the muscles of the abdomen; we daily give tone and energy to the organs of reproduction; and when we have produced that state of health which belongs to the woman of nature, we trust nature to do her own work, giving all the aid she requires, and careful not to obstruct or derange her beneficent operations.

The pain of labour is caused by the dilatations and contractions of diseased organs. Free those organs from disease, and their natural functions are never accompanied with pain. In numerous instances, I have known the *os uteri* to dilate completely, the uterus to contract, and the child to be born with from one to three contractions, accompanied by so little pain as to scarcely discompose the countenance. This has been the case, not with Indian women, nor negroes, nor Irish washerwomen, but with delicate ladies, who, in their previous confinements, had had great suffering, but who had obtained all this blessed relief by means of the water-cure. Several cases of this kind are given in Mrs. Nichols' little book, "A WOMAN'S WORK IN WATER-CURE," in which she says:—"The writer has had a large obstetric practice for several years, and has never had a patient who was not able to take an entire cold bath, and sit up, and walk, the day after the birth of a child. I need not say that life would often be the forfeit of even rising from the bed, at an early period after delivery, where patients are treated after the old methods. The water treatment strengthens the mother, so that she obtains a great immunity from suffering during the period of labour, and enables her to sit up and walk about during the first two days after delivery. In all the writer's practice, and in the practice of other water-cure physicians, she has never known an instance of the least evil resulting from this treatment." The same writer published the following in the *Water-Cure Journal*:—"I have been very much gratified with several births that have recently come under my care. One young lady, who was really far from strong, but who had been living very carefully on water-cure principles through her pregnancy, encouraged and supported by a strong, earnest husband, suffered slightly one quarter of an hour. Another, with a first child, and whose friends frightened her all in their power, took the cure under my care, and when she was delivered, she could hardly be said to suffer at all. I was uncertain whether the expulsive efforts were accompanied with pain. I said, after the birth, 'Were those efforts painful?' She hesitated, and then said, 'Slightly.' The same day she sat up and held her babe, and said she felt well. In another case, the babe was born with three expulsive efforts, each of which was somewhat painful. *This was all.* The lady was up the day after the birth, and about house as usual, in a week.

"Let me not be understood as saying that all our cases of child-birth in water-cure are as painless as those to which I have alluded. In cases where the patient has taken the water-cure, the relief from pain and the shortening of the labour are the measure of the benefit derived from the treatment. It is in cases where the preparation has been thorough and complete that child-birth is almost entirely deprived of its pains and perils.

"It is in such cases, with patients who have suffered greatly in previous confinements, that the labour has been so short and so easy that they were scarcely able to say whether the contractions of the uterus and expulsive efforts were accompanied with pain. In three cases, which occurred on three successive nights, I was not in either detained over two hours, and these were far from being the most favourable. 'Are these efforts painful?' was asked of one lady, a short time before the babe was born. 'No,' she replied, 'it seems as if I had rather make them than not;' and now, in speaking of her confinement, when from habit she says, 'When I was ill,' she corrects herself by saying, 'No I am wrong, for I was not ill at all.'"

But it is not only the time that is shortened in childbirth, and the pain that is lessened, but the danger is almost, and in all cases of natural labour entirely, removed, by the treatment pursued. If the action of the uterus lingers, we give no poisonous and uncontrollable ergot: the cold sitz bath acts like a charm in bringing on frequent and regular contractions. Convulsions are unknown in our treatment. Floodings are checked with great certainty, in all cases, by the application of cold water, and are prevented after labour by cold injections into the vagina, and the wet bandage. I have never had a case which I could not leave with safety in half an hour after the birth of the child, with an absolute certainty that the mother was in entire comfort —the after-birth removed, the mother bathed and bandaged, her linen changed, and she removed to a clean bed and ready to get some hours of refreshing sleep. As to fatal flooding, or peritoneal inflammation, after childbirth, I have never heard of a case of either under water cure management, nor do I believe such a thing possible; so surely are they guarded against by this mode of treatment. After-pains, so common with the ordinary treatment, are scarcely known

in this; and the rapidity of recovery is in proportion to the immunity from suffering and danger. In many cases, the patient feels as well as ever on the third day. Every patient who has been properly prepared by previous treatment gets up the first day, takes a sitz bath, and is washed all over, taking two such baths daily. A week may be considered a fair period of convalescence, and I would not advise any patient to venture out under that period. I have seldom found it necessary to make more than two visits after confinement.

I have given a simple statement of facts connected with the treatment of female diseases and our own method of management in childbirth by the water-cure. These methods may differ somewhat from those of other water-cure practitioners, but they are such as we have found to be in all respects satisfactory. No woman who has once experienced the blessings of this treatment, would ever choose any other, and there is no doubt that as fast as it is made known, it will be everywhere adopted.

And now, in conclusion, let me recapitulate some of the benefits that this simple and natural treatment offers to women.

It relieves their weaknesses, and cures their peculiar diseases without exposure, without indelicate examinations or manipulations, and the dangerous applications of the actual or potential cautery.

It does away utterly with the cumbrous, disgusting, and mischievous instruments which women have been compelled to wear, to their great annoyance and real injury.

It restores the tone of the entire system, gives action and energy to all their organs and functions, and prepares them to perform the duties and enjoy the happiness of the marriage relation.

It carries them safely through the period of gestation, preserving their health, increasing their strength, and preparing them, in the best possible manner, for the period of maternity.

It greatly shortens the duration, and mitigates and almost entirely prevents the pain of childbirth.

It allows the immediate removal of the placenta, and prevents hemorrhage and afterpains.

It removes all danger of puerperal fever and inflammation.

It secures a rapid recovery, and a certain freedom from prolapsus uteri, and other affections, which so often follow childbirth with the ordinary treatment.

It gives the best promise and security that can be given of healthy and well-developed offspring. The comfort, cheerfulness, and hope of the mother seem to have the most happy influence upon the character and constitution of the child.

For more particulars of the regimen and treatment by which these results may be secured, the reader is referred to Mrs. Nichols' book, already quoted; to "Esoteric Anthropology," which has been a guide to so many women; and to parts IV. and V. of "Human Physiology the Basis of Sanitary and Social Science."

ADVICE FOR INVALIDS.

STRICT attention to the following rules will cure nine cases out of ten of all kinds of chronic diseases. Nature is always "doing her best for Captain Montague," as Mr. Critchett said, and Lord Somebody telegraphed. Nature will cure if we will only give her a fair opportunity; and this is the way to do it.

That the stomach may have time for digestion, without interruption, and then a period of rest, the meals should be full five hours apart. The craving for food between meals comes from the weakness and irritability of the stomach, and is best allayed by taking a glass of cold water in sips.

Three meals a day are enough for any and too much for some. The last meal should be the lightest, because then the strength for digestion is least. An invalid should go to bed with an empty stomach, that it may not disturb the brain, and may have a long period of rest and recuperation. Some of the best cures we have known were made on one moderate meal a day.

For breakfast take porridge of oatmeal, or, what is better for many, whole wheat meal, wheaten groats, or crushed wheat, Food of Health, fruit, raw or cooked, baked apples, stewed prunes, &c., &c. The porridge may be eaten with a little milk and sugar, or syrup. Brown bread is good toasted, with a little hot milk poured over it. In many cases dry bread toasted or rusked is better than porridge.

The wheat should be finely or coarsely ground according to the state of the bowels. Coarsely ground or crushed wheat acts more readily as an aperient, and will cure most cases of constipation. If the bowels are relaxed, boiled rice may be used instead of wheat, and white bread instead of brown.

If flesh meat is taken let it be only at the mid-day meal, and only fresh beef, mutton, or poultry. Australian or South American meats are more healthy than the fattened meats of Britain and the Continent. Fat meat, ham, bacon, and the more oily kinds of fish, as eels, mackerel, and salmon, must be avoided. Salt, smoke, sugar, whatever prevents putrefaction, also retards digestion.

Invalids should take but one vegetable at a meal with meat or fish, and but two without. Pease and beans, mealy potatoes, tomatoes, and onions are very nourishing, and make good dinner dishes. Bread, fruits, and plain puddings may be added. Bread and fruit only for the last meal usually called *Tea*. No invalid should take supper. Too much food of any kind produces flatulence, but this is specially true of vegetable food.

Rest a quarter of an hour before, and at least half an hour after, every meal. Give time for the life forces to go to the stomach and at least begin their work.

The proper amount of food for an invalid must be found by experiment. Twelve ounces of solid food, such as bread or its equivalents, a day, are generally sufficient for the healthy; but dyspeptics must take less, according to the

power of the stomach and assimilating organs. No food is needed in acute diseases until the violence of the disease has abated. In all cases of chronic disease there is more or less of dyspepsia; and all cases of dyspepsia can be cured if the patient will give the stomach long intervals of rest, and always keep the quantity of food taken at a meal *within* the measure of the digestive power. Eat slowly; masticate thoroughly. When food is so taken it is easily dissolved, and a less quantity satisfies.

Too much salt is eaten by all—and heating sauces, pepper, mustard, &c., are injurious in themselves, and cause too much food to be taken, as well as deleterious drinks.

Water is the only drink for health. It may be mixed with the juices of fruit, or poured hot on a little milk and sugar as a substitute for tea. Drink slowly. No invalid should take tea, coffee, beer, or spirits. It is better in many cases to drink after, than at, our meals—better in all cases to drink only when thirsty, and not from mere custom and habit. Pure soft water washes the blood clean and carries diseasing matter out of the system.

It is well to be much in the open air and sunshine, and to allow out-door air to come into our dwellings, and especially our bedrooms. Avoid draughts, and ventilate by small openings, or so as to diffuse the fresh air currents. Throw back the shoulders, expand the chest, and get the habit of full breathing. Plenty of pure air in the lungs gives life to the blood.

Exercise according to the strength, not in long wearying walks, but in short, brisk plays, like "Bean Bags," or in riding, driving, or brief spells of rowing. Skipping the rope is a good exercise. Skating is too hard work for many delicate women. One of the best exercises, active and passive combined, is a good use of the flesh brush or rough towel over the whole body, and a rapid pounding over all the chest and abdomen with the closed hands. Few things are better for stomach, liver, spleen, kidneys, and bowels than this exercise.

Beds should be of hair, wool, manilla grass, or the like—not of feathers or down. Woollen clothing next the skin, light or heavy according to the season, may be worn in England the year round with advantage. It should be washed once a week. All clothing that is worn during the day should be taken off at night, and well shaken and put to air on chairs, or hooks, and night clothes well aired during the day—not rolled up and put in closets. Linen or calico worn next the skin needs washing oftener than woollen. Bed linen should be changed once a week, and beds, blankets, and pillows put often in the open air—and well beaten. Typhus is laid up in clothing, beds and bed-rooms, as well as in schools, churches, and dark, unventilated dwellings.

Rest frequently in a horizontal position, which favours an equilibrium of the circulation. Try to get plenty of sleep. Invalids need seven or eight hours. "Early to bed," is a good maxim, and to be in bed by ten o'clock a good rule for all.

No one can maintain or regain health without purity of thought, and consequent purity of life. To have "a sound mind in a sound body," both must be pure and chaste. Chastity is a condition of health—absolute continence is often an absolute condition of cure.

Follow these rules and you will never need doctors nor drugs, "spécialité sherry," or "encore whisky." A Turkish bath once a week is good; and if you cannot find one, the Portable Turco-Russian is an admirable substitute, and can be taken every day with almost no expense, and, in most cases, with great advantage. It is very light, and packs in a small compass. With the self-raising whole wheat meal there is no more trouble about getting good brown bread. With good wheat and hand mills to grind it, the healthiest and cheapest food can be had everywhere.

Note.—Dr. and Mrs. Nichols do not usually prescribe medicines, because they are seldom needful. They do, however, furnish certain homœopathic remedies in cases that require them; anthelmintics for tape and pin worms; and phosphorus and sulphur for certain forms of nervous disease.

THE TURKISH BATH.

In nine cases out of ten the hot air bath, or hot vapour bath, used over so large a part of the world, from the tropics to the poles, and among civilised and savage peoples, is one of the most effective modes of preventing and curing diseases. There are countries where the people know no other mode of cure. Whenever they are ill, or even much fatigued, they resort to the hot-air bath and wash away disease and weariness by abundant perspiration. Two thousand years ago there were splendid baths of this kind scattered over England. Quite recently there were numbers, not splendid, indeed, but quite effective, in Ireland. They are to be found along the southern shores of the Mediterranean, in Turkey, and over a large part of Russia. The North American explorers found the vapour bath in use among the aborigines.

Every district of every town should have its cleanly, cleansing, well conducted bath, where people could get well and keep well. By the exertions of a benevolent Irish lady, who has been unwearied in teaching the people the laws of health, and whose little books, of which we have supplied so many, "Illness, its Cause and Cure," and "Simple Questions and Sanitary Facts" have educated thousands, every poor person in Cork can have an excellent Turkish Bath for threepence; so that the Corkonians are now the cleanest and thereby the healthiest, and we believe also the handsomest people in Ireland, and that, as everyone who has been in Ireland knows, is saying a good deal for them.

But what shall people do while waiting for all these baths to be built? Must they still go to the doctors and be dosed with "Spécialité Sherry" and "Encore Whiskey," and drugs more nauseous, if not more dangerous? No. We have invented for them a Portable Turco-Russian Bath, which is an admirable substitute for either the hot air or the hot vapour bath. In some cases, those who have not been

able to take the Turkish Bath have taken this with great advantage. We have used it in our practice for some time in many cases, and with admirable results. It generally brings out a profuse perspiration in ten minutes. In twenty to thirty minutes the patient can take his final ablution, and be polished to a rosy statue with the Turkish towel. The cost is infinitesimal. For some thirty shillings one may have a thousand baths, which makes them considerably cheaper even than those enjoyed by the cleanly Corkonians. We therefore cordially recommend to all invalids, and to all who may possibly become invalids, to get such a bath as they will find advertised and illustrated in another column.

"EVERY MAN HIS OWN MILLER."

If any one cares to live on sixpence a-day, or half or one third of that sum, or to make his income go as far and do as much as it can for his family, we can tell him *how to do it.* Buy a bushel of good wheat of some farmer or corn dealer at the current price. Then have a mill and grind it into good, sweet, whole and wholesome meal. One can simply boil the wheat, and so eat it—the frumenty of our ancestors. It is very nice, but it takes a long time to boil it tender, so that the kernels will crack open. For bread and porridge it is better to have it cracked or coarsely ground. One might do this in a mortar, or between two flat stones, which was the primitive fashion. But a mill is handier. Any mill almost will grind wheat. A good coffee mill does very well for small quantities; but as every kernel requires a certain amount of force to crush it, all hand-mills are slow. That does not matter much. One gets some good exercise, and if only a little is done at a time it is all the sweeter. Our mills are very good mills, which regulate with a screw to grind fine or coarse, and fasten to a table or pantry shelf in a moment, and unfasten as quickly. They weigh from three to six pounds, and last for many years. We have had them in use for four or five years, and they grind as well as ever. Every mill pays for itself in a few months, and if we value the sweetness and healthfulness of food, there is no telling its economies. The price is from 6s. to 30s. The cost of two or three doctor's visits will buy a good mill, and the mill will go far to banish the doctor. And there is no doubt that all doctors ought to be banished, so far as good food, and consequent good health can do it. *A bas les médicins.* Up with the mills—down with the pills!

MALVERN WATER.

We are now ready to supply to all our friends, customers, and visitors, a glass of pure water from the celebrated springs—the century renowned "Holy Wells" of Malvern. This water, in the "ages of faith," was believed to have supernatural virtues; and the lovely Malvern hills were thronged with invalids who came to be cured. They gathered around "St. Ann's Well," the "Holy Well," and the "Eye Well," now corrupted to "Hay Well," and the pure air, and bathing in and drinking the sweet waters did them good, as they do people good in these days, when faith is not so plentiful.

Malvern water is simply pure water. It is perfectly soft and almost perfectly pure. There is the merest trace of silica and chloride of sodium—not enough to prevent its being used like distilled water in photography and other chemical processes. No drinking water can be more delicious. It runs into the blood, and washes all its globules clean. It comes out of the pores and brings with it all waste and diseasing matter. An old donkey woman who haunts St. Ann's Well with her long-eared companions, always advises people to drink plenty of the water. "Drink it," she says; "drink plenty of it. It will do you good:" and then adds, in an impressive whisper, "*It's got cream o' tartar in it!*"

The beauty and deliciousness of the water comes of its having nothing at all in it, but its own bright purity. If London and all the towns of England could only have such water to drink, there would be far less disease, and, after a time, less beer and whisky. As a step toward that happy state of things, we invite everybody to come and drink at least one glass of Malvern water at 429 Oxford Street, W., near Tottenham Court Road, and nearly opposite the "Oxford," or 39 Museum Street, near the British Museum. It will cost them a penny-a-glass; because railway freights are high, and it is 128 miles to Malvern. Or they may have it home for fourpence a quart bottle, four shillings a-dozen; very carefully put up to keep it fresh and pure. There are thousands of invalids for whom it would be the cheapest and best of medicines.

THE FOOD OF HEALTH.

The sale of this admirable article of diet for all ages and conditions is increasing with extraordinary rapidity under the judicious and energetic management of the wholesale agents, Messrs. Franks & Co., 14 Little Tower Street, London, E.C., who have sent us a second list of agents in country towns, all over the United Kingdom, so large that it is simply impossible for us to make room for it; and such a list is no longer needed, just because it is so large; and because any dealer will be too glad to order it of Messrs. Franks & Co. We have now the testimony to its value in consumption, dyspepsia, constipation, liver complaint, and general debility. Children curiously thrive on it, and need no medicine. A very distinguished marchioness—distinguished more by her talents and philanthropy than her rank—wrote to us a few weeks ago for directions how to prepare the Food of Health for an infant three months old. Here is our answer: "Stir into boiling milk and water (half-and-half) to make it a creamy pap; boil 15 minutes, and add a little sugar." Where the mother's milk is deficient in quantity or quality, there can be no better substitute. There is no doubt that the Food of Health is very much superior to some foods double and triple its price, and that it contains important elements of nutrition wholly wanting in others.

BUSINESS.

All orders should be accompanied by a crossed cheque, post-office order, or, for small sums, or when specially convenient, stamps.

Orders should be made out fully on a separate leaf, or paper, with name and address clearly written; also railway line and station. Orders mixed up with other matters in a letter are liable to delay.

All articles advertised by the Co-operative Sanitary Company can be had both at 429 Oxford Street, and at 39 Museum Street.

Agents' price-lists on application.

THE HERALD OF HEALTH.

This is the last number of the first volume of The Herald of Health. It is the end of so much of one year's work—much the easiest and pleasantest part of it.

That pleasantness, said to appertain to the "ways of wisdom," comes in part in the doing of what seems to us good and useful work; and in part also from its success and appreciation.

The circulation of The Herald of Health has been from 20,000 to 60,000. Allow five readers to each copy, and you may get an idea of the number of persons possibly benefited by its perusal.

By a peculiar process in the black art of Faust, we and our good printer have gathered all the matter of these twelve numbers worth keeping into a handsome large octavo volume of about 160 pages, two columns on a page, which we shall now bind up in paper covers, and sell for one shilling—the cheapest shilling's worth, all things considered, ever offered to the people of the British Empire. In quantity, it will be equal to an ordinary octavo of 600 pages: in quality—well, it will be more graceful to let others speak of that; but there cannot be two opinions as to the importance of the subjects treated of in this unique volume. It will also be bound in boards at one shilling and sixpence; and very handsomely in cloth for two shillings.

We hope and expect, with the aid of our present readers and good friends, and through the ministry of the most useful distributors of intelligence, to quadruple the circulation of The Herald of Health in this attractive and convenient form. There is no reason why we may not sell a hundred thousand copies. Every single important article is worth the price of the volume, and "nothing succeeds like success."

To place this first volume of The Herald of Health in the hands of many persons who might not feel able to buy it, even at this little price—for which, in fact, they might get four pots of beer, or six cigars—we wish to present a copy to every library and reading-room in the United Kingdom. It will cost a lot of money to do this, and we have been considering how we can raise a philanthropic fund for this purpose. This is our bright idea: For two years people have been sending to us for a photograph. In all that period we have found no spare morning hour to sit for a negative; and, to tell the truth, which is not to be told at all times, we do not quite fancy the idea of selling an image or likeness of ourselves, even though there be no danger of its becoming an object of idolatry; but now we will sit for our photo, and send a copy to every contributor to a fund for placing The Herald of Health in the libraries—a copy to *every contributor of one shilling and upwards to that fund.*

This may help towards the solution of the old question of the relation of beauty and use—by showing that there may be a great deal of use where there is a very insignificant proportion of beauty. But if the fund comes in, we shall fall back on the saying: "Handsome is as handsome does."

And now for Volume Two.

It will be a neat, compact, pretty octavo magazine, in the prettiest cover we can get for love or money, with at least 32 pages of reading matter, distinct from the advertisements, which, with all transitory things, will be printed on a separate sheet.

It will be sold for Threepence a number. It will cost nearly three farthings a week—less than a glass of beer—a little more, perhaps, than a pipe of tobacco. There may be people who cannot afford to take it. Threepence a month may be too much for them. If any such person will send us word, we will try and make a reduction. We have great respect and pity for honest poverty; some pity also, but not so much respect, for dishonest stinginess.

For the past year we have sold the Herald under cost, and given it away by thousands. Now, as in duty bound to the shareholders of our company, we put it upon a very economical paying basis. We shall ask threepence for an amount of matter usually sold for sixpence or a shilling, and we know that some people will grumble, and refuse to pay it. What *can* be done for such people? Is it worth while to try to do anything? In the purgatory of stingy souls, every farthing will be as big as a cart-wheel, and they will have to roll them about until they get willing to spend them, or even to give them away to souls, if any can be found, more needy.

The first number of Vol. II. will be out promptly as usual, and dealers will please send in their orders as soon as possible. We shall send them something very nice in the way of showbills. As to matter, we shall follow the same plan as in the first volume. Each number will contain one important article, certainly worth the price of the number, with the best illustrations we can afford to give. Each number will contain a portion of Mrs. Nichols' philanthropic and sanitary story of "Jerry," and as much, as varied, as interesting, and as useful matter as we can crowd into its pages.

The price will be 3d. a number; by post, 3s. 6d. a year. Those who can more conveniently get it by post, will, we hope, at once send in their subscriptions. Three and sixpence is not much; but a few thousand three-and-sixpences count up to a very convenient sum. But wherever it can be done as well, we prefer to let the newsmen and newswomen—

all the distributors of intelligence—have their profit in our work. The price will enable them to take more pains with it. The fraction of a penny a month is too little. The dealers' part of threepence is a small fortune. It is not improbable that raising the price of the HERALD to Threepence will treble its sale—not because people will be more anxious to buy, but because dealers will take more pains to sell. Or, better still, both seller and buyer may display increased alacrity, and then we shall not merely double but quadruple our already very gratifying circulation.

WELL, HOW GOES THE COMPANY?

As all our visitors ask this question, we presume that our readers would ask it if they could, and would like to have it answered; so we answer it.

The Company goes slowly, but it goes; perhaps all the more securely. Every week—nearly every day—adds to the number of shareholders and the amount of capital. Working men send post-office orders for two, three, or four shares; people of larger means send for twenty, fifty, a hundred. We do not get as much money as we want, but we are making a good use of what we get; and, in some way, which some people call providential, money often comes to us just when it can be used to the best advantage.

If we had three times our actual capital, we could bring forward some important things; and we will mention a few of them in the hope that some who have money will be induced to help on our work by taking a share, or shares.

THE WEEKLY PAPER we have planned would help the HERALD OF HEALTH, and all our works, and very much widen our sphere of usefulness. It can be got up very economically, and would be a source of profit from the start. Its principal serials would be stereotyped from week to week, so that each would be a finished book ready for the printer at its conclusion.

Early this season, we wish to bring out our plans for warming and ventilation, which will save an immensity of waste in coal, waste of labour, waste of life; and which must be profitable in something like the same proportion to those who will own shares in these great improvements, which are not for England alone, but for all people in the temperate regions of the earth.

We wish, also, to engage as early as possible in the saving, preparation, and distribution of fruits; satisfied that here is a mine of wealth as well as a mine of health for the people of all high latitudes. If we cannot enjoy the direct sunshine of the tropics, we can luxuriate upon its concrete forms, and supply the toiling millions of England with more wholesome food, which will give them health and life.

The object of THE CO-OPERATIVE SANITARY COMPANY, LIMITED, is to supply the whole people with pure food, pure water, pure air; light and heat; intelligence and love; health and happiness. It can all be done by co-operative effort—a combination of capital and labour. And it can be done without involving anything Utopian or Quixotic; but in plain common sense, business ways, and on business principles, by just going on, expanding and carrying out our present work. Therefore we ask all who can do so, to take shares in our company.

CONFERENCES.

ON Thursday evening, May 18th, we inaugurated, if one may use so grand a word about so small a place, our pretty little Lecture Hall at 429 Oxford Street, by giving the first of a series of Conferences on Sanitary and Social Science. These will be continued every Tuesday and Thursday evening, and we hope they will bring together the friends of the Health Reform, and be interesting and instructive. Dr. Nichols takes the chair each evening at 8 o'clock and states the subject for inquiry and discussion Then follow questions and very short speeches, or more properly conversations, in which ladies join as well as gentlemen—and often better. These subjects comprehend the whole ranges of Sanitary and Social Science—evils and their remedies: goods and how to attain to them.

The lecture room is small, but very nice and perfectly ventilated. It is up one flight of stairs, and, being built out from the rear, is quite out of the roar of the great thoroughfare. All the 'buses down Oxford Street bring people to the door: those on Tottenham Court Road to the next corner. Admission is free by ticket, which can be had at 429 Oxford Street, W., or 39 Museum Street, W.C., or by writing to either place; but each ticket is good for only the date inscribed upon it; and, if not used on that night, may be exchanged for one of another date. This is necessary to avoid crowding and discomfort.

WE have added a SANITARY SOAP to our list of hydropathic appliances. It is pure, made of olive oil, without an atom of animal matter. It contains three powerful deodorising disinfectants. It cures cutaneous diseases, and is the best possible dentifrice. It instantly relieves the smart and pain of burns or scalds, and quickly cures them. It destroys infection of measles, scarlatina, smallpox, &c. We have no doubt that it is the best toilet and medicinal soap in the world; and very cheap withal: sixpence a tablet—by post ninepence.

A MODEL letter, which many might copy to advantage, comes to us from St. Leonards-on-Sea:—"Sir,—Believing, as I do, that your Company and efforts are likely to prove beneficial to the cause of temperance, I beg you to place me on your list of shareholders for five shares, and oblige yours truly, ———" This is signed by a lady; and ladies, we are glad to say, own nearly half our shares. And the more they take the better we shall like them, if there is still room for improvement in this direction.

ANSWERS TO MEDICAL INQUIRIES.

By Mrs. Nichols.

One asks whether we use warm or cold water for local inflammation. We use cold water in bathing and wet sheet packing, but we bathe inflamed parts in warm water, and put on cloths wet in warm water. General bathing, &c., with warm water is weakening as a rule, but local applications to sores, inflamed eyes, &c., &c., should be warm.

One asks what kind of fruit should be eaten, foreign or home grown. I answer both. Our own in their season, and the foreign fruits as they come to us. Preserved fruits, such as are cooked in their own weight of sugar, are very indigestible, unless for very healthy stomachs, but dried fruits, stewed and canned fruits are healthy. Oranges are a special blessing especially to children.

What quantity of food shall I eat?

This is a continually recurring question, and one that I cannot answer. Each must find out for himself or herself the quantity of food best suited to sustain health and strength. If a patient comes to me with indigestion I discover as soon as I can how much food will digest well. If there is pain, acidity, burning, flatulence, weight, or a sense of sinking at the pit of the stomach too much food is taken, or the wrong kind, or both. Sometimes a patient has to fast so as to be too weak to sit up. Better lie in bed and let the stomach rest and get right than to keep up the strength and the disease at the same time.

One asks how long will it take me to get well?

How long has it taken you to get ill? There should be some proportion between the time taken to produce both conditions.

Can I drink black tea?

Certainly you can without any leave from me, and you can have your reward in nervous disease.

Can I drink cocoa?

Persons who have diseased liver suffer much more from cocoa than from tea. It often brings on bilious disease, and pains called spasms. Pure water is the best drink for all.

The best way to treat children poisoned by vaccination I will try to give as briefly as I can. It is true that when there is an unhealthy state of the system, as there too often is, the virus given in vaccination is much more harmful than when the person vaccinated is healthy enough to resist the poison. There is much disease in parents from bad habits as well as from vaccination, and children are born with tainted constitutions. They are quite prepared to be very ill from vaccination, and the virus introduced is blamed for more than its own inherent evil, as the same virus would be ejected from the system by a person with pure blood and good vital energy. But when bad matter is added to an inherited or induced evil condition of the blood the result is very terrible. I have had children under my care the last two years, that, but for judicious water cure, must have died in a way too dreadful to describe. It is very distressing to see children of tender years, with no fault of their own, covered with loathsome eruptions, when they ought to have health, and fair and beautiful faces and forms. I am constantly contending with scrofula in its various forms. In children, and especially after vaccination, it takes the form of scab, purulent eruption, and inflamed eyes. Often the hair is lost, and the eyes permanently injured. My practice is to promote the action of the skin by bathing, packing, hot-air baths, and careful diet. I do not weaken the skin by long application of hot air. The longest time, as a rule, I allow in hot air is one half hour. Packs are of longer or shorter duration as the patient is able to bear them without restlessness. One hour to two hours is the average. All water cure must be adapted to the patient's power of getting warm—what is called reactive power.

The success or failure of the best remedial treatment depends much upon the diet of the patient. If a stimulating and feverish diet of animal food, animal oils, high seasoned dishes, and the round of bad drinks is indulged in, the patient cannot expect cure.

A pure diet of itself cures often. I have cured purulent opthalmia by a fruit and bread diet, and bathing the patient daily in cold water, and the inflamed eyes in warm water. Still there are cases of blood poisoning from impure vaccination, specially when the vaccine matter had been taken from a syphilitic person, that take a long time to cure. A year or more may pass before the patient is washed clean from the perilous stuff.

One of the charities I have set for myself specially is to cure children whose blood has been poisoned by vaccination. I have cured where the whole surface of the body was one continuous purulent eruption. One of the worst and most painful symptoms is abscess in the ear, but the eyes are at times nearly, or quite destroyed.

I do not like to dwell on this sad subject. So many people look upon vaccination as the only safeguard against smallpox that I seem an enemy to speak against it. I by no means deny the value of inoculation or vaccination with genuine smallpox virus that has passed through the system of a healthy young cow; and if we must have vaccination let us have genuine virus, and not a spurious disease, very little resembling smallpox, and that which has passed through the circulation of diseased children or adults, and that has thus added to itself syphilis and cancer, and various forms of scrofula.

With simple healthy living smallpox loses its dangerous character. It would take more than one generation of righteous living and water cure to wash the evils of vaccination from the British people. But whatever time or pains are needed the work must be done, or

the future of great numbers will be one of suffering unto death.

To help children in whatever way I can is my mission. To give food, clothing, advice, and care as to health, instruction to those who have children to bring up, and, above all, to show to the world the law of pure and painless birth which, when obeyed, insures healthy children, all this is my mission.

I have in my mind a way in which all this can be most effectually done, which I shall in due time make known to my friends, and the friends of our race.

Worms and their treatment demand a special article in this or the next number of the *Herald*.

ACKNOWLEDGMENTS.

A kind lady gives five shillings, with these words of sympathy:—"Will you accept of the enclosed *mite* towards your good work amongst the children, with an earnest prayer that God may bless you *in* it and *for* it, and long spare your life for his service. "E. B."

Mrs. Nichols gives the following extracts from recent correspondence:—

The writer of these few lines is the son of a charity schoolboy, was born, bred, and still is a working man, has been fortunate in his time to pick up and acquire scraps of knowledge relating to the laws of health, and to reduce to practice the information conveyed, hence he appreciates the value of such an Institution as that described in the September *Herald*. The writer will give out of savings the sum of £50, if ten others can be found to give the like amount as the nucleus of a fund to establish the School of Life, the details of which have been so ably explained by one of your correspondents in a recent number.

A noble lord—one who obtains his money easier than the writer—lately gave £10,000 to support the papacy. A Belgian Catholic also gave some £8000 for the same purpose. Another rich Crœsus who signed himself an unprofitable servant of the Lord, lately gave £5000 to help to Christianise the African (see *Daily Telegraph*). Surely we have some of Nature's true nobility left in England who could of themselves erect this Temple of Health, where Nature's physical laws could be made clear to the meanest capacity, and enlighten the ignorant heathen at home. Such a school would wage perpetual war against our unholy trinity of ignorance, disease, and poverty, and in its stead, exhibit one holy in all its parts, a trinity of intelligence, health, and comparative affluence. Who will assist in solving the problem? R. V. W.

I open that master-piece of human wisdom "Esoteric Anthopology," and I find on its second page the following sentence, "God has not mocked man with desires never to be fulfilled and an ideal never to be realised." I also see in the September and consecutive numbers of the *Herald of Health*, that you and Dr. Nichols have an *ideal* School of Life, which you have pledged yourselves to found for outcast infants and the true physiological education of women. From a long and earnest though silent study of the subject, I find no other "ideal" which so happily accords with my own sentiments, and so fully expresses the growing need of our age. Hence I pray your acceptance of the enclosed £130, the hoardings of hard labour, as a free-will offering in aid of the School of Life, and sincerely do I hope that the *Herald of Health* will evoke other kindred spirits to come forward and make a path for the helpless.

ONE WHO LOVES LITTLE CHILDREN.

PRESERVING EGGS.

THOSE who wish to preserve eggs, now so plentiful and cheap, so that they can have them fresh and good at Christmas, can now do so with very slight trouble and cost. They have only to take a jar, crock, cask, or any clean vessel that will hold the eggs they wish to preserve, and pour into it one gallon of water for each eighty eggs, or twelve gallons a thousand; but the vessel must be only half full of water, as the eggs will fill the other half. Into this water put the Co-Operative Sanitary Company's Egg Preserver, a fine powder, which soon dissolves, and preserves every egg in the exact condition it is in when immersed in the solution, for an unlimited period. It will keep them perfectly fresh for years; but, of course, it is only needful to preserve them until the next spring. The new patent egg preserver, carefully boxed, is sent carriage paid to any railway station in England—to preserve 500 eggs for 5s.; 1000, 8s. 6d.; 2000, 15s.; 4000, 28s.; 8000, 50s.; 16,000, 90s.; 32,000, 160s. Here is an economy for all housekeepers, hen-keepers, egg-users, and egg-dealers, which may come to a fortune. "A penny saved is a penny earned."

APPLES may be cooked in a hundred ways, and in all are healthful and nutritive. They are good roasted before the fire; stewed whole; stewed into sauce with a little sugar, butter, and cinnamon or lemon peel, if liked; boiled; baked in their skins; pared and cored, filled with butter and sugar and baked; placed whole or sliced into puddings of almost every kind; made into dumplings, baked or boiled; in short, as the components of an endless variety of dishes.—*How to Cook.*

DRINKING causes poverty. People waste not only their money on drink, but also their time in drinking; a man spends sixpence on drink, and he will waste as much time over it as he could have earned another sixpence in. It indisposes men for work by bringing them into association with idle, dissolute companions: disease is promulgated, and accidents are caused by it—a father or a son is laid aside, or killed, and families are thus reduced to poverty. In the report presented to the Convocation of Canterbury by the Committee on Intemperance (1869) the testimony of 119 governors of workhouses is quoted; of this number 80 state the proportion of pauperism that they consider to be the result of intemperance; not one gives it lower than one half, and the average estimate is 73 per cent. That proportion of our poverty that can be traced to drinking costs the nation £10,000,000 a year.—*"The Drinking System," from Macmillan's Magazine.*

TO READERS AND CORRESPONDENTS.

In the new volume of the *Herald of Health*, we mean to keep one special page in each number to answer the questions of our readers. It is a good thing to do, for what comes to the need of one answers for many. Cases differ infinitely, but they are still more alike. "We are all members one of another."

"L. B."—There is no doubt that the Food of Health is good in consumption. A physician writes from Liverpool,—"I have witnessed such charm-like results from the use of your 'Food of Health' in a case of pulmonary consumption, that I have recommended it in another case, and will thank you to send us some more." In obstinate constipation the Wheaten Groats are even more efficacious.

THANKS for a poem from one who writes—"The *Herald* is a monthly source of enjoyment and store of knowledge to myself and those numerous friends to whom I have introduced it." So must it be to millions more.

THANKS also for "Thoughts on Luxury and Poverty," from E. D. Girdlestone, Esq., B.A., on which we shall draw copiously for our Conferences and in future numbers.

"F. S."—And plenty more. A little leaflet by Dr. Ellis gives what seems good evidences, that paralysis and blindness (amaurosis), may be caused by tobacco. As Rip Van Winkle says, "you are petter midout it."

"ENCORE WHISKY."—Dean Wilberforce quotes an able, intelligent physician, who says,—"Doctors often dose men to death with brandy." It is quite proper that the names of such doctors and their medical journals should be paraded in the windows of public houses, to encourage people to come in and drink whisky.

THANKS for the case of erysipelas cured by water and diet. We shall give it in a future number because it shows the way to cure all such cases.

"J. H."—It is often impossible to account for mother's marks. In some cases they can be referred to the longings of pregnancy. Any strong emotion of the mother may be impressed upon the body or mind or morals of the child.

"F."—If Condy's fluid, or our sanitary soap, or any equally good disinfectant, is used in packing and bathing patients for scarlet fever or measles, the danger of infection is almost if not quite removed.

"VEGETARIAN *pro tem.*"—The "popular objections" of your friends are too silly to need answering. Horses do not overrun the earth, although people do not eat them, except in potted meat and sausages; and the English who eat roast beef are no more robust than millions who never taste it. Read Mr. Buckmaster.

"W. FELCH."—There is no end of truth and cleverness in the poem; but we know that it will hurt the feeling of reverence in many of our readers; and there is so little left that we want to save it for seed.

"WM. S. H."—The contradiction certainly needs to be explained. A pleasurable intellectual excitement, like an after dinner conversation, with wit and mirth, helps digestion, but any intense occupation of the mind may entirely suspend it.

"GEORGE HAY."—The self-raising whole wheat meal will keep good as long as meal ever keeps, and the longer for being self-raising. All meal must be kept in a cool, dry, place, and all the better if in tin or earthen vessels. There is no trouble in making light and delicious bread with it. It is the trouble that spoils it. There must be no kneading or moulding. It is only to mix it quickly to a dough not too stiff, put in a buttered dish and set in a good oven. There cannot be better or healthier bread.

A VERY good letter from "H. H. E." New South Wales, in a future number. It is a pleasant sensation to get sympathy from one's antipodes. Few things have pleased us more than a strong recommendation of Esoteric Anthropology from a missionary in the Fiji Islands. It was his guide in the care of his wife when she had no other surgeon or nurse in her confinement.

BOOKS BY POST.—For four years we have sent books by post with great satisfaction. Very rarely has one been lost, and if there is ever a failure we send another copy free. Thus we warrant safe delivery. We do more. If any person orders a book of us—one of our own—and, for any reason, is dissatisfied with it, he has only to send it back, and the price, without deduction, is promptly refunded.

BOOKSELLERS AND NEWSAGENTS can have all our books sent to their London agents, or can order of J. A. Brook & Co., 282 Strand, general agents of the HERALD OF HEALTH.

HEALTH HINTS FOR JUNE.

Now come the longest days of the year, and they would be the warmest were there not the stored cold of winter to be overcome. There are Polar currents and icebergs. June brings us summer fruits; and the juices of strawberries, raspberries, and even of gooseberries, are better blood purifiers than all the drugs and nostrums of the shops. The more we live now on ripe fruits, making them a considerable portion of every meal, the better we shall be. Ripe fruits, honestly eaten as food, and not taken as a luxury, or at the end of a too bountiful repast, are the best food, not only for children and invalids, but for all. They are easy of digestion, they prevent or cure constipation, and have a truly medicinal and purifying action. Every scrofulous child should have plenty of fruit, sun-ripened, if it can be had; if not then let it ripen by the fire—that is, be nicely cooked. The winter supply of oranges preserves the lives of thousands. But our own summer fruits are perhaps still better both for food and medicine. Marmalades and jams are too rich in sugar, and most English preserves are too sweet and too much boiled to be easy of digestion. When the Co-operative Sanitary Company, Limited, gets into full operation, everybody will have fresh fruits the year round, and the poorest a bountiful supply of preserved fruits for tarts and puddings. No more scrofula or scurvy.

In June the streams are still cold. Don't be in a hurry to swim in them, if Captain Webb has swam the Straits of Dover. Or, if you go in, be in a hurry to come out again. When you come out, take some brisk exercise to equalise the circulation and prevent rheumatism.—*Herald of Health Almanac.*

Health is that which makes your meat and drink both savoury and pleasant, else nature's injunction of eating and drinking were a hard task and slavish custom.

PRIVATE OPINION.

The following extracts from private letters received by Dr. Nichols during the past two years, are selected from a much larger number of a similar character, the whole of which would make a volume.

As to "Human Physiology.

An Irish M.D.—"I have read your 'Human Physiology' with very great interest, and trust I shall like 'Esoteric Anthropology' as well."

A Yorkshire Clergyman.—"As soon as your 'Esoteric Anthropology' is ready I shall be glad to have a copy. Your other book, 'Human Physiology,' I consider most excellent and useful."

A Gentleman of London.—"Would that I had seen such a book fifteen years ago! It would have been worth more than its weight in gold to me."

A Young Gentleman of London.—"I have carefully read your 'Human Physiology,' and it has awed me. The good it will do is incalculable."

A Somerset Clergyman.—"I look for a treat in the perusal of 'Esoteric Anthropology,' second only to that afforded by 'Human Physiology,' on the subject of which I have read simply nothing at all approaching to its merits."

A Gentleman of Keswick.—"I never read a work I enjoyed more or received more benefit from. If you will send me some circulars I will send them to a few sensible friends of mine, and advise them to buy it."

A Young Lady writes of "Human Physiology:"—"I thank you for writing such a book, for it has opened my eyes to many things I was ignorant of, and I thank God for it. Would that it might go into every home in the land. It would do an *immense* amount of good."

A Gentleman, Queen Square, London.—"I have never met with so succinct and yet comprehensive and eloquent a treatise on some of the most important of earthly subjects."

A Clergyman.—"I must congratulate you. It is a very superior production, and does infinite credit to your head and your heart. It cannot fail to do immense good."

A University Professor.—"It is to me a delightful phenomenon to find a physician so earnest as you are to begin reform from the material basis, and yet having pure spiritual aspirations, and eminently free from the medical laxity on sexual questions which now disgraces Europe."

A Friend in Leeds.—"Our minister told me yesterday it is an extraordinary book, which has helped him to understand one teaching of the Scriptures more than all the works on Theology he has ever seen."

A Gentleman of Brierley Hill.—"Your 'Human Physiology' is a grand book, and its noble sentiments ought to be widely read. Every Member of Parliament, and every parson or minister of every denomination ought to have a copy of it."

A Vicar in Yorkshire.—"I cannot refrain from expressing to you the very great pleasure I received from reading your work on 'Human Physiology.' It is an admirable book."

A Lady near Dundee.—"I have just risen from the perusal of 'Human Physiology,' and I must express my most unqualified admiration of it. I cannot help wishing it were in the hands of every intelligent person in the land."

A Gentleman writes from Ahmadabad, India:—"After reading your 'Human Physiology,' I cannot allow a single mail to leave this country without writing to tell you of my admiration for the work as a whole, and particularly of my thankfulness for the appearance of a simple, practical, and masterly refutation of that dreadful book, the '———.'"

A Gentleman of Sheffield.—"The whole book is so good that it is impossible to say which of its six parts is best. It must work a moral revolution. It is not only useful but perfectly lovable."

A Lecturer on Phrenology.—"Your 'Physiology' goes out of the old beaten track, looking higher and deeper into man's nature and surroundings than any book upon the subject within my knowledge. Material for a thousand sermons and a hundred lectures are in its pages. I want everybody to read that book."

A Doctor of Divinity writes:—"Your 'Physiology' I intend to *study*, and retain as a *vade mecum*. And I fondly hope and pray that your works may eventually revolutionise our whole social system."

A Roman Catholic Priest.—"You are certainly to be congratulated upon the manner in which you have treated very difficult matter. I am very glad that I have the work."

A Lady of high position in Art, Literature, and Society writes:—"We have derived real pleasure and satisfaction from your 'Human Physiology.' It is truly a *wise* book, full of feeling, experience, and observation: philosophical, yet suited to the general capacity of intelligent persons."

A well-known Baptist Minister writes:—"I am delighted with the 'Human Physiology,' and will commend it to all ministers and wise men I meet with."

A Gentleman writes from Sheffield:—"I have read and re-read it with such delight as I have scarcely ever had in reading any other book. To me it appears to be—as far as a book can be—one of perfection: it contains the philosophy of man's soul, life, existence, and destiny, from his cradle to his grave, in a nutshell. It is science and morality, religion, and poetry, and philosophy all at once. I wish every person, especially every young person, in the land could get it and read it."

A distinguished London Clergyman writes:—"I am deep in your 'Human Physiology,' and enjoying every word of it. It is a little sad, though, to think of it coming into one's hands at 46 instead of at 16 years of age. I have promised my dear children the privilege of reading it. You are to be thanked and admired beyond all praise for handling these subjects with such skilful refinement and delicacy."

A Clergyman of the Church of England, an M.A. and F.R.A.S., writes:—"I have read your 'Human Physiology' with *deep* interest. It is a noble, logical, and philosophical work, and will do immense good. It is *eminently a book for the times*, and does infinite credit to your head and your heart. It deserves a *world-wide circulation*."

An Irish J.P.—"I have read your 'Human Pysiology' with much interest, quite agree with the principles you lay down, and am satisfied with the whole work. I wish you to send me also your 'Esoteric Anthropology.' I am the father of nine children, and am anxious to be able in the best way to warn and guide them; and I think your books will help me to give such instruction as every other father ought to give his sons."

Of "Esoteric Anthropology."

A Gentleman of Staleybridge says:—"I know of no more useful book in the language."

A Patient at Matlock.—"If I could have seen and read such a work thirty years ago it would have been priceless to me." [This is the testimony of many others.]

A Young Man of Lancashire.—"I am very much pleased with 'Esoteric Anthropology,' and I am also very much benefited by it. Every one who has common sense ought to have one. I have lent it to several, and they all say it is worth twice the money."

A Gentleman of Manchester.—"I have read your book, 'Esoteric Anthropology,' with very great satisfaction, and there is one part of it whose importance cannot be overrated—viz., the chapters on sexual relations; and considering the consequences of ignorance, the importance of affording reliable information on those subjects seems greater than in any other branch of sanitary science."

A Lancashire Gentleman.—"I am much benefited by your 'Esoteric Anthropology.' I consider that such a book, written in such a spirit and with such clearness and delicacy, is certain to be a great boon to society. For myself, I may say that the knowledge imparted by your books upon diet and the general laws of health has been of the greatest service. I regret that I had not had the advantage of it ten years ago. I am sure your name will be gratefully remembered by thousands." [See also emphatic opinions in advertisement on page 161]

Of "How to Live on Sixpence a-Day."

A Lady.—"Your 'How to Live on Sixpence a-Day' is calculated to do an immensity of good. I am delighted with it, and the vision of departed headaches and dyspepsia."

A Gentleman of Stepney.—"For the last three or four months I have lived upon 'Sixpence a-Day' with much benefit to my health and purse."

A Gentleman.—"I have experienced great benefit from your 'Sixpence a-Day.' It has given me light, but I want *more;* so please favour me with a copy of your 'Human Physiology' and 'How to Cook.'"

A Clergyman writes from the Precincts, Canterbury:—"Please send me three copies more of 'How to Live on Sixpence a-Day': it is excellent. Oh! that all, and especially all young men, would take its advice."

A Working Man at Newcastle-on Tyne.—"I have tried the experiment of living on Sixpence a-day, and find it to work well, and I find myself in much better health since I tried it. It is shameful what a waste there is in this country with the working class and everybody."

A Doctor of Divinity in Wales.—"I have read with much interest your 'How to Live on Sixpence a-Day.' Be so good as to send me a copy of 'How to Cook.' I think there is soundness in your science, and wisdom and benevolence in the *morals* of your books."

A Medical Student of Co. Durham.—"I obtained 'How to Live on Sixpence a-Day' about two years ago, and since reading it I have been enabled to live on fivepence a-day with more comfort and pleasure than I did on more than five times the amount before."

A Gentleman of Wolverhampton.—"Your book, 'How to Live on Sixpence a-Day,' supplies a want long felt by the community. The system of living and cooking among the English I have always considered most unscientific, wasteful, and expensive, and a disgrace to us as a nation."

A Canon of the Roman Catholic Church.—"I look so well that people are gradually approximating their mode of living to mine. The excessive use of animal food and the taking of stimulating drinks are certainly affairs of the past among many of my friends. My face backs up and advertises 'How to Live on Sixpence a-Day.'"

A Working Shoemaker in Surrey.—"For years I suffered from indigestion and its attendant maladies, the result, I now believe, of over and bad feeding. I have read your 'How to Live on Sixpence a-Day,' and have greatly benefited by its instructions. I have also your 'Human Physiology,' which I believe will in time let a glorious and healthful light into the homes of millions of the working classes in this country. Myself, I am deeply grateful to you for it."

A Liverpool Gentleman.—"Mr. ——— (another subscriber to your works), with whom I am now residing, and myself, thank God with all our hearts that we ever came across 'Sixpence a-Day.' Perusing it led to obtaining other works of yours and others; and the knowledge thus gained has been the means of vastly increasing our health and vigour, and has also been the means of saving the life of one of S.'s children and that of a mutual friend, both of whom we firmly believe must have perished under the ordinary system of medication."

A Gentleman writes from Clapton Park, London:—"I have tried several of the modes of diet recommended in "How to Live on Sixpence a-Day,' and find it quite possible to live on much less, and that with great advantage to my health. When your books become widely-known, poverty will diminish and wealth become universal."

An ex-Civil Servant writes:—"I consider 'How to Live on Sixpence a-Day' one of the ablest, if not the ablest, book on the subject of diet ever written; and feel sure that thousands have been benefited by its teachings."

A Scotsman writes from Elgin:—"I have just finished 'How to Live on Sixpence a-Day,' and I must say that I never read a book that gave me more satisfaction. Its value is far above pounds, shillings, and pence."

Of "A Woman's Work in Water Cure."

A Missionary in Fiji writes:—Mrs. Nichols' experiences in Water Cure ('Woman's Work') are valuable—very valuable in a place like Fiji."

A Lincoln Gentleman.—"Mrs. Nichols' little work on 'Water Cure' was the first I ever read on the subject, and since then I have dispensed with doctors and drugs in my family. I give you my warmest thanks for 'Esoteric Anthropology,' as every honest-minded man should who reads it."

A Gentleman of Coseley.—"Please forward me four sets of all your works, including Mrs. Nichols on Water Cure, as I have mentioned them to several friends, who wish to purchase them. I wish to aid in their circulation, for in the whole course of my reading I have never met with any works at all comparable with them."

A Lady of Loughborough.—"I have read 'A Woman's Work in Water Cure,' and think it is the most valuable exponent of water treatment I have

ever seen, and a wonderful testimonial to the extraordinary talent, skill, energy, and benevolence of the Lady Physician, its authoress. I esteem the book on 'Human Physiology' as a great treasure."

Of "Count Rumford."

A Gentleman of Middlesex:—"Everybody delighted with "Count Rumford."

A Distinguished Lady:—"I am so delighted with 'Count Rumford' that I want you to send me a dozen copies to distribute among my friends. I am sure the state of the lower classes in England requires to be dealt with by strong heads and hands, and in grand comprehensive schemes."

A Gentleman writes from Bolton:—I have read all your works and am delighted with them. As Count Rumford banished beggary from Bavaria, your books, if followed out in practice, would banish beggary, ignorance, disease, vice, and crime, from the whole world. If I were rich I would buy a large quantity for distribution."

A Lady writes from Ellwoengen, Germany:—"Mr. Leidke, at Turin, has had the kindness to send me your excellent little work, 'Count Rumford,' which I have been reading with the highest satisfaction; so much the more as your name is already well known to me by your 'Human Physiology' and 'How to Live on Sixpence a-Day'; and as it is written in the same pure spirit of true philanthropy, I cannot help thinking that it ought to be read and well understood by the German people too, and therefore I should like very much to translate it into German."

Of "Behaviour."

The Head Master of a Grammar School in Yorkshire.—"I like your work on 'Manners and Behaviour' very much."

A Gentleman writes from London:—"Your 'Behaviour' is, in my opinion, the best of its kind, and the only readable book of manners I have ever come across. Kindly forward me another copy."

A Lady Poet and Artist writes:—"Best thanks for so kindly sending the list of your valuable works, but best thanks of all for 'Behaviour.' It is admirable, and we will hope may lead to a finer perception of the beauties of life."

An Eminent Roman Catholic Clergyman.—"Accept my best thanks for the little books, and especially the charming work on 'Behaviour.' It goes to the root of the matter, laying down in an engaging and attractive manner *principles* rather than *rules*, and so leading people to work out for themselves practical problems which would be meaningless and ineffective if they were only presented to the eye in the usual way."

Of "Forty Years of American Life."

From a Poet and Philosopher.—"Your American Sketch Book, if I may so call it, is a very handsome volume, and is of great value; presenting just that picture of America, and American life, which people in England so much want, and presenting it so gently and amiably, as well as brightly and picturesquely, in a manner so entirely free from anything to challenge antagonism, that the sympathy and friendly feeling with which it inspires the reader for the writer, extends itself imperceptibly to his subject, and strengthens and vivifies its interest."

A Nottingham Manufacturer writes:—"I thank you very much for the copy of your new edition of 'Forty Years of American Life.' I was up long past midnight reading it. The style fascinates. You go on reading while conscience tells you it is time to cease, because in the next sentence you expect, and not in vain, that some pleasant surprise awaits you. But what is the most remarkable feature in the book is its wonderful impartiality. One moment it takes such a truly English view of things that we feel convinced the writer is an Englishman; then again it shows so fairly and so lovingly all the good there is in America and American Institutions, that there is no longer a shadow of doubt as to the writer's nationality. It is a capital book to precede the "Twelve Years of English Life," for no one who reads this will doubt for a moment that the view taken of England and Englishmen will be perfectly fair, accurate, and trustworthy. Such a book is a rarity and a luxury. It saves a world of time, and the pain of much misgiving."

A Gentleman very widely known, and whose name could I give it, would influence many, writes.—"I have found your 'Forty Years' very amusing, very instructive, and infinitely suggestive;—so interesting that I read it into the small hours this morning, and only shut it up when my candle went out and I could read it no longer."

A very distinguished Member of Parliament writes:—"Dear Sir,—The portions of your book which I have so far read make me consider it one of the most interesting and valuable, because trustworthy, works of the kind for a long time published in England."

Of the Books generally.

A Gentleman writes from Liverpool:—"I thank you for the benefits derived from your works, which have saved me much money and anxiety."

A Lady writes from Twickenham:—"I am one of a large family, and all its members follow the advice contained in your books, and we derive great benefit from it."

A Dock Labourer, Newport, (Mon.)—"I take this opportunity of thanking you for the most important information I have derived from your most valuable works—'Esoteric Anthropology,' 'How to Cook,' and 'How to Live on Sixpence a-Day.' I most cordially sympathise with you in the noble objects to which you are devoted."

A Manchester Man.—"I have been much interested in your books, and have given away all you sent me. If I were rich I would distribute many more, but as I am not I must be content to do what I can. For the P.O.O. enclosed, please send me 8 copies of 'Human Physiology,' and 4 'Esoteric Anthropology.' I have advised a great many to write for your books from various parts of the country."

A Working Man.—"I wish every one could understand the great benefit I have received from the perusal of a few of your little books. I cannot help telling you that I am better now, at 65 years of age, than ever I can remember since I was 30. For the last nine months I have walked upwards of four miles every morning to my work as a handloom weaver, and the same distance in the evening after working hours. Though I am not strong, I have greater powers of endurance than I ever remember having before."

A Gentleman of Lincolnshire.—"A young friend of mine residing in London, had the misfortune to consult quacks about a serious disease, and spent many pounds in searching an imaginary relief. At last one told him that all the others had been wrong, but that *he* would effect a cure for £20! My poor friend wrote to me in despair. I sent him your various works; he commenced the hydropathic treatment and lived on sixpence a-day. Now, sir, I have the pleasure of announcing to you that he is *completely cured*, happy, merry, and proud. Not a penny has been taken from him, and his only drugs were *water* and *vegetables*. This cure appears to me so striking that I cannot help bringing it to your acquaintance. Since his diet has been reduced to the modicum of sixpence a-day, his appetite is normal, his digestion perfect, and it is a pleasure to see and feel in his letters the joy of his new-born heart."

A Midland Journalist writes:—"I have several of your books, and I cannot but express my unqualified admiration at their clearness, their candour, their vivacity and completeness: and I cannot but feel wonder at and sympathy with the evident purity of the productions of your versatile pen."

The Wife of a distinguished Clergyman writes:—"We are all very grateful to Dr. Nichols for what he has written, and mention his books to all our friends. It demanded some courage to write on subjects which are studiously avoided, but which yet need investigation and reform. I thank God he has done so."

A Gentleman writes from Exeter:—"I have read most of your valuable works, and have lent them to those who can hardly afford to purchase them, and recommended them to all of my acquaintance, and need scarcely say that they have won golden opinions from every one who has perused them. For myself, I have never read any books so *thoroughly instructive and interesting*, and my only regret is that their light did not shine on me years before."

An Eminent Clergyman writes:—"I have read with very great pleasure the 'Scamper' and 'Count Rumford,' and owe it to myself even more than to you, to speak in the warmest terms of these charming little books. I shall soon send for your 'Esoteric Anthropology' and 'Behaviour.'"

The Prior of a Monastery writes:—"Please accept my thanks for your kindness in sending me your little books, which are both interesting and useful. 'How to Cook' is replete with useful information, and promises to relieve the monotony of our dietary."

A Letter from Canon Kingsley.

There can, we believe, be no objection to my giving the following letter from the late Canon Kingsley, who took so much interest in the promulgation of Sanitary Science, with its proper signature:—

"Eversley Rectory, *Nov.*, 1872.

"My Dear Sir,—It gives me much pleasure to renew my acquaintance with you. Your book ['Human Physiology'] will receive my earnest attention, as well as the pamphlets. I am glad to find that you approve of my work. I shall do my best to spread your work as a fellow-labourer in the same good cause.—Believe me, dear sir, yours faithfully, but in haste, "C. Kingsley.

"Dr. T. L. Nichols."

Dr. Nichols has also had the honour to receive, quite recently, the following letter in English from his Grace the Archbishop of Turin, Italy:—

"Archiepiscopal Palace,
"Torino, 9th March, 1875.

"My Dear Dr. Nichols,—I have received the books and your letter, and am most thankful to you for both. I have already read much of the book on '*Behaviour*,' and I find it very useful in every respect. It deserves the title it bears—'A Manual of Morals.' Probably many of the good things spread in this book will be translated into the Italian language.

"I have read also your '*Scamper Across Europe*.' It is a very beautiful book; but it is a pity it is too short, so that you can only taste it, and not satisfy your appetite. Therefore, I congratulate with you for your talents, and your learning, and your good heart, and am, your very thankful servant.

"Lorenzo Gastaldi,
"*Archbishop of Turin.*"

The above letter enclosed a very handsome photograph of this evidently enlightened and benevolent prelate, who was partly educated in this country.

As to Mills.

"Some twelve months ago I got one of Dr. Nichols' mills. It cost me 13s. besides carriage. It grinds wheat nicely, either coarse or fine. From good well dried wheat I get good flour, which makes delicious bread. I add two pounds of rice flour to every six or seven of wheat meal. I also grind the rice in the same mill, and it does it admirably; by slackening the adjusting screw I make it grind Indian corn. It also serves to grind coffee, and I have no doubt it would grind barley too; *Chwaracteg ir felin.*"—John Davies, Ystalyfera, *in Dietetic Reformer.*

"Your Herald of Health gives complete satisfaction. It is a truly grand work, and one that I hope you may be spared many years to carry on. I spread it amongst my neighbours as far as possible."

"Food of Health is really delicious."

"I have tried the 'Food of Health,' and find it truly excellent."

"When reading your admirable and much-needed journal last night, I thought of the many hydropathists in Scotland who would be glad to take the Herald of Health if it was only made known to them. There is no reason why it should not circulate over the country in its tens of thousands."

"I shall be happy to recommend your 'Esoteric Anthropology' in every possible way, as I consider it most invaluable. I had long searched in vain for the information it contains."

"I cannot but try to express to you my admiration of your two books, 'Human Physiology' and 'Esoteric Anthropology.' They are indeed a blessing, and calculated to work a thorough reform, and give the world new life."

"I am delighted with the Herald of Health, as with every work of yours I have read. It is the best journal of Health it has ever been my good fortune to read."

"I have received your Herald of Health, and some of your books, with great delight, and believe that you are doing an amount of good beyond the power of man to calculate. The Lord bless you in your great work."

"Allow me to thank you sincerely and ardently for writing your invaluable work, entitled 'Behaviour.' I never read a book with greater interest, or from which I received so much instruction. I try to follow the sound and practical advice it contains, and wish I was able to distribute it freely among young girls of my age."

"For a week I have taken daily two meals of your 'Food of Health with most surprising results. For several years I have suffered from habitual constipation, and very severely from piles, and for the latter underwent an operation a year ago with but partial success. Since taking your 'Food' my bowels have become regular and painless, full and natural in their action. I have advised several of my friends to try it."

"DEAR SIR,—Your HERALD OF HEALTH gives complete satisfaction. It is a truly grand work, and one that I hope you may be spared many years to carry on. I spread it amongst my neighbours as far as possible. I had five copies this month, but find that they are not near enough. There is hardly a day but what some one comes to me with enquiries of some sort concerning your books, mills, 'Food of Health,' etc."

"I have tried the 'Food of Health,' and find it truly excellent."

"When reading your admirable and much-needed journal last night, I thought of the many hydropathists in Scotland who would be glad to take the HERALD OF HEALTH if it was only made known to them. There is no reason why it should not circulate over the country in its tens of thousands."

"I shall be happy to recommend your 'Esoteric Anthropology' in every possible way, as I consider it most invaluable. I had long searched in vain for the information it contains."

"Voilà un livre [Esoteric Anthropology] que vous pourrez consulter à votre grè: pour paraître à vos yeux, son mérite est auguste."

"I cannot but try to express to you my admiration of your two books, 'Human Physiology,' and 'Esoteric Anthropology.' They are indeed a blessing, and calculated to work a thorough reform, and give the world new life."

"I am delighted with the HERALD OF HEALTH, as with every work of yours I have read. It is the best journal of Health it has ever been my good fortune to read."

"I have received your HERALD OF HEALTH, and some of your books, with great delight, and believe that you are doing an amount of good beyond the power of man to calculate. The Lord bless you in your great work."

"Allow me to thank you sincerely and ardently for writing your invaluable work, entitled "Behaviour." I never read a book with greater interest, or from which I received so much instruction. I try to follow the sound and practical advice it contains, and wish I was able to distribute it freely among young girls of my age."

And so on through a drawer full of letters. We like this last particularly. Apparently most people suppose "Behaviour" to be a mere manners book. In our own opinion it is one of the best we have ever written—a book of principles and education in morals and life.

The following is from an eminent Yorkshire clergyman, and we give it entire, excepting name and address:—

"Dear sir,—I have looked over very carefully the paper which you kindly sent me.

"The noble object you have in view in issuing your paper and books has my deepest sympathy and most earnest prayers for its success. As a minister of Christ, in my own humble way and sphere I am labouring to carry out the same object.

"Would you kindly forward me a copy of your 'Esoteric Anthropology,' for which I enclose 5s. in postage stamps.

"Feeling a deep interest in sanitary and social science—as my heart is so often bled by sights of disease and wretchedness which might have been avoided by a knowledge of the simplest laws of health—may I offer a *hint?* Could your invaluable books on this all-important question of health not be published in a still *cheaper form*, so that they may be more widely read by the *working classes*, who most need teaching the laws of health?

"I think your 'Esoteric Anthropology' very valuable, and I wish that the knowledge it contains could be given to every boy and girl by their parents. I shall do my best to spread the knowledge of your books, and the principles which they teach."

ONLY WATER.—Water! you say—what is the good of mere water? There are still many people in the world who know very little about it; and wasting diseases and premature death are far more familiar to the multitude of those who have been called "the great unwashed." Water, however, is an element of some importance. Four-fifths of the human body is composed of water. Blood, brain, nerves, are nearly all water. Muscle is three-fourths water, and it even enters largely into the composition of the bones. Water cleanses the surface of the body, and restores the healthy action of the skin. The skin itself contains thirty miles in length of tubes, which in health, and the effort of the system to throw of disease, pour out water. By water all food is dissolved, and so enabled to penetrate the system and nourish its tissues; by water the waste matter of the body is carried out of the body through the skin, the lungs, and other secreting or excreting organs. We can live much longer without food than without water. No life is possible on earth without it. It is the necessary element of all vegetable and sensual life. Is it strange that pure water should be the most powerful agent in producing that purification and invigoration of the body which is the cure of disease?—*A Woman's Work in Water Cure.*

APPENDIX.

Being about to print another of the many successive editions of this volume of THE HERALD OF HEALTH, at the close of the year 1880, we take this opportunity to add a few pages of what we think may be interesting, and we hope will prove profitable matter to its readers. Most of it is copied from the HERALD for October and November, and from the *Health Almanac* for 1880—papers which we hope our readers will think worth preserving. These articles and paragraphs will show somewhat of the progress of the Health Reform since the previous pages were written. We believe that this movement will go right onward.

THE GIFT OF HEALING.

BY DR. NICHOLS.

ALL living things have in them the principle of cure. It is, in fact, the principle of life itself; for the same interior force or energy that gives us growth, and makes us live, move and have our being, also repairs damages, restores lost substance, and cures our diseases. It is the life in the acorn that makes it grow to be an oak, and become the father and mother of a great forest. The life of the human mother builds up and then nourishes her babe. It is the force of life that mends the broken bone, heals the wound, and restores to health the diseased organism. This is the *vis medicatrix naturæ*—the healing power of nature always combating the causes of disease; always doing what is possible for the restoration of health and the prolongation of life. Therefore we say—nature is doing her best to cure you. All natural tendencies are towards health. While there is life there is hope, because life works for health—for cure.

This force of life—this healing power of nature—exists in different degrees. It may be too weak to overcome the diseased state or diseasing conditions. Art may sometimes remove obstructions, and we may give favouring conditions. When we give air, light, cleanliness, proper food, and proper surroundings, *life* can do its own purifying and invigorating work. As a rule, patients get well when they are placed in good conditions.

But there is something more. Some persons have more life, or a stronger life than others; and in some persons this life element is, so to speak, more fluent. It flows out to others. It is communicable. The mother gives her life to the child in her womb and upon her bosom. Love is life and life is love—the love of charity—the love of the neighbour flowing out to all who need and can receive its help.

There are some persons peculiarly gifted to generate or receive this potent principle of life, and with whom it is peculiarly fluent or communicable. It is in the experience of all of us that the presence of such persons gives comfort, hope, and strength. The grasp of such friendly hands gives a new life. Other persons produce quite an opposite effect. Some persons attract, others repel. The men and women whom we love to be near have a stronger, a richer, and more fluent life than others. They are more *sympathetic*. This word SYMPATHY is, perhaps, more expressive of this power or gift of healing than any we can use, and to it, above all means employed (which means are not to be neglected because they are more or less conditions), we must attribute most of the remarkable cures effected during the past twenty years by Mrs. Nichols, some of which are recorded in her "Woman's Work in Water Cure."

It was, in my opinion, the possession of this Gift of Healing that gave her, at an early age, a strong desire to cure the sick. She studied physiology and pathology, gave lectures on health, and adopted the practice of hydropathy that she might the better do her work; but she found that she had a power to heal which was not dependent upon any external mode of treatment. The best way to make this fact apparent—for it may not be possible to make it understood—is to give a simple statement of some of the cases she has cured.

In several instances I have known her to take away the pain of a sprained ankle by laying her hand upon it for a few moments. One case was my own. The sprain was very severe and painful—the relief almost instantaneous and com-

plete. Another case was that of a lady in Indiana. She was thrown from a carriage, and brought home in great agony. Mrs. Nichols laid her hand upon the swollen limb, and the patient soon fell asleep, and was entirely cured.

A young girl came to her with an arm so lame that she had not been able to raise it to her head for months. Mrs. Nichols laid her hand upon it, and in a few moments she was able to use it without pain. Three years after, affected with a similar lameness, it was removed in the same manner, and has never since returned.

Some months ago a young man, violently thrown from his bicycle, came with his right arm swollen as large as two, and very highly coloured—blue, green, and yellow. While Mrs. Nichols passed her hands gently over it, the colours visibly faded, and the patient was, in a few minutes, able to raise his hand to his head. A few repetitions made a perfect cure.

These are examples of what may be called surgical cases, but the process of reparation in internal organs, or in the nervous system, must depend upon the same force of life. Here is a case of general as well as local disease. A lady with nervous exhaustion, and those distressing female diseases from which so many women suffer, was living where she could not have the proper hydropathic treatment. Mrs. Nichols saw her twice a week, placing her hands on her head, and holding her hands. In a few weeks she entirely recovered.

Incurable diseases like cancer and consumption in its later stages have been greatly ameliorated by the same means, and life prolonged. In one case a lady believed that she was held in life, and made a comfort to her family for four years by this ministration.

In another case Mrs. Nichols could always give the patient a full night's sleep. In another she was able to soothe convulsions, make the patient sleep, and, finally, to cure her.

It is easy to say, when a person has been cured of what was supposed to be consumption —*phthisis pulmonalis*—that there was no such disease. What we can say is that several persons with cough, spitting of blood, hectic, progressive emaciation, and given up by physicians and friends, have been wonderfully cured. Many years ago a young lady in Ohio, and lately a young gentleman in South Wales, were so restored, to the great joy of their friends. This case was, and is, a wonder, we may almost say a miracle, to all his friends. He was brought by a friend who had himself been cured of what seemed an incurable disease, to Malvern; emaciated, pulse 120, bad cough, hectic fever. He is now a strong, hearty young man, able to carry on a large business.

A few months ago a gentleman was brought to us from near Manchester, who seemed past recovery from what is called consumption of the bowels. He was wasted, had diarrhœa, discharges of blood, pus, and membrane, and had found no benefit in any kind of medication. In a few weeks he went home cured, and has been well and engaged in active business ever since.

A year ago there came to us a lady from Yorkshire, feeble and nearly blind. There was partial opacity of the cornea and weakness of the optic nerves. It seemed a hopeless case, but she went home in fairly good health, and able to do the finest embroidery.

About the same time there came to us a young man from Lancashire—weak, emaciated, cadaverous, despondent—one of many victims of nervous exhaustion, whom medicine had, as usual, failed to cure. He was placed upon a simple diet, which his friends feared would starve him, with just water-cure enough to keep him clean, and he took the sympathetic remedies. After some weeks of gradual improvement he went to visit some relatives in the South of England, and when he came next to London, I did not know him. He had gained three stone in weight, and was round and ruddy.

I could fill many pages with accounts of cases, but they all have substantially the same features. Life triumphs over disease by the aid of some added life. Power is given and communicated. There is a gift of healing for those who can receive it.

But was it not the diet that cured—was it not the water cure? A pure diet is a condition of cure. Pure food makes pure blood, and pure blood builds up a healthy body. It is very important that every patient should have pure and proper food, pure air, and all the conditions of health. In many cases, also, these are all that is needed for cure, but there is also needed, in many cases, another element to hasten, to perfect, perhaps to initiate the curative process. Life takes hold on life—it reinforces the healing power of nature. The recuperative element gets sympathetic aid. Weakness and diseases of the nervous system—of brain, lungs, heart, stomach, etc.—are cured just as I have seen sprains and bruises cured, by the added force of another life, or higher powers which come to and through those who have the gift of healing. The mother kisses her hurt child to make it well. The friendly hand soothes the aching head and the aching heart. The presence of some persons gives us rest and strength. It is not what people say or do which makes their company delightful to us, but what they are. In silence and darkness the touch of some hand may be a perfect delight. So of letters or gifts. They have a value beyond the written words or costliness.

But these things, it may be said, are imaginary. They act upon the mind. How can they benefit the body? We do not know the "how" of a great many things. Of course we know that the mind acts upon the body—spirit controls matter, but we do not know how. A thought may give agony or delight—energy or prostration. A mental shock has often destroyed life. We do not know how one life-force can penetrate or act upon another, or by what process it enlivens, invigorates, and gives health and

strength; but we may know by observation and experiment the fact that it does so—just as we know the ordinary facts of attraction, repulsion, and the mysterious forces that govern the universe.

The force of sympathy can act at a distance, or its power can be imparted to material forms. A letter, written by one who has this gift of fluent life, and the warm and earnest desire to do good to another, is imbued with that power, and carries a very real blessing to the one who receives it. A piece of blank paper, held and breathed upon, retains the vital force which has been given to it, and makes upon a sensitive spirit the impression it was intended to make. Mrs. Nichols sends leaves of very delicate paper which are laid upon diseased portions of the body—lungs, heart, stomach, uterus, &c.—and work a rapid cure. It does not matter *how* it cures, but will imagination account for the cure of serious disease in children, and even infants?

Other substances, receive, retain, and convey these vital sympathetic curative powers. One of the most convenient forms is that of the pillules of sugar of milk, used by homœopathic physicians as the vehicle of potentialised medicines. They receive as readily the potency of life, and melting in the mouth impart it to the nervous system. For several years Mrs. Nichols has sent these sympathetic pillules to distant patients almost all over the world, and has received expressions of the warmest gratitude for the good they have accomplished. People who have been cured by them have written for their friends, for children, and in some cases doctors have used them with remarkable success among their patients.

Another, and perhaps the best, vehicle she has made use of for this sympathetic power of life is a liquid—a concentrated grape juice, the product of a semi-tropical region, which has filled it with glowing life. The syrup itself is highly nutritive and salubrious, but filled with the sympathetic life-force which appertains to the gift of healing, it works inconceivable wonders. The power is so great that very sensitive patients are obliged to take it in very small doses—a teaspoonful once or twice a-day. Others can take a dessert spoonful or more. It acts first upon and through the stomach, and the plexuses of nerves that govern digestion and nutrition, and then upon the whole system. This is the "Alma Tonic"—and from what I have seen of its effects, and the cures it has wrought in very desperate cases, I can have no doubt that it is the best medicine in the world; best, because most potent and most universal in its efficacy.

No doubt all these vehicles carry the same power. All are applicable in the same cases, and in all cases. Physicians who have special drugs for special diseases do not believe in any catholicon, or cureall—but life is a unit, and life combats death everywhere with the same vital force. Air, food, light, warmth, electricity, all life forces act upon the whole system. Life combats death. The *vis medicatrix naturæ* is one force acting in every direction. By these sympathetic medicines the healing power of nature is reinforced, aided, energised, and helped to do its work of cure. By this means also a beneficent power can be conveyed to any distance, and the good work widely expanded. The sympathetic paper and the pillules can be sent everywhere by post, and the Alma Tonic by rail or express.

But these sympathetic medicines cannot be expected to do their work without proper conditions, or against opposing influences. As far as possible every patient must observe the conditions of health, and do everything to favour and nothing to oppose their beneficent operation. Air, food, drink, habits, must be healthful, or as much so as possible, to get the greatest good. This is but reason and common sense. A diseased stomach cannot be cured while it is daily irritated and exhausted by an unhealthy diet. An exhausted and irritated brain cannot be cured while it is oppressed with work and worry. It is necessary, therefore, that the directions sent with the sympathetic remedies be strictly, faithfully, conscientiously observed. No good result can be guaranteed where this is neglected. The cause of the disease, whatever it be, in habits or conditions, must, as far as possible, be removed. And it is desirable also that all patients who have arrived at years of discretion, should be in sympathy with their physician, working with good will and fidelity heart to heart, and life to life, with united aspirations for the desired good.

There are some cases which are naturally incurable. There are some in which the best we can hope for is some amelioration. But in the far greater number there is hope and there is help, for those who can receive it. It is our duty and our pleasure to do the best we can for all who come or send to us for help.

THE DIET CURE.

In nine cases out of ten which come to our knowledge or under our care, patients suffer from dyspepsia. A bad tongue is an almost invariable symptom of a weakened, disordered, or diseased stomach. From a bad stomach comes naturally a diseased liver. The food and stimulants which cause dyspepsia, and all the habits of life which bring on nervous exhaustion, which may itself be a chief cause of a disordered digestion and its attendant constipation, cannot fail to produce weakness and disorder in the nerves which govern the circulation and secretions. Heart and brain partake of the weakness and disease of the organs of digestion.

It is in the experience of millions that the ordinary medication by drugs — purgatives, opiates, stimulants—does not cure these diseases. With rest—with some change of diet—with the amelioration of diseasing conditions, and by the healing power of nature which heals wounds

and mends broken bones, people may recover health, with, or in spite of, bad medication. The persistent efforts of nature to overcome disease often defeat the most mischievous medication. In the days, not yet past for some countries, when thousands were slaughtered by the lancet, a great many wonderfully survived that horrible and murderous treatment. In these days, when doctors are prescribing beef and brandy, there are still some who are strong enough to survive such treatment. In a great many cases a good constitution triumphs over the worst medical treatment.

On the other hand, we see patients who simply rest from all fatigue, and have the advantage of a simple and pure diet and good nursing, rapidly recovering from serious disease while taking no medicine, or only the infinitesimal doses of homœopathy. These can do no harm—and they seem to do good, carrying with them the good will, and therefore the vital force, of the physician, who can scarcely fail to be more or less a healer. The statistics of homœopathic hospitals and private practice show better results than any that can be claimed for allopathy. If it be said that the billionth part of a grain of carbonate of lime or of charcoal cannot have any appreciable effect upon disease, our answer is that it is difficult to prove a negative, and that if the cure comes of the good diet generally prescribed by homœopathists, and the conditions of health and cure with which they surround the patient, or the *vis medicatrix naturæ*, aided by whatever influences and conditions, it is better than bleeding, blistering, purging, stimulating, and all the bad routine of orthodox allopathy. We have seen what seem to be good results from homœopathy, and of its negative merits no reasonable man can doubt.

But of the good effects of the diet cure—living upon such quantity of simple, natural food as brown bread, or its equivalents, milk and fruit, or the easily digested vegetables which are its substitutes, as the stomach can digest—we can have no doubt whatever. The flesh of dead animals is not a necessary of life. Man is not naturally a carnivorous animal. We are better without flesh-food, and our patients in all cases recover more rapidly when they live upon a pure vegetable diet. The best drink is pure water and the juices of fruits. These juices make pure living blood, and their effects are well known in the cure of scurvy and all similar diseases. With pure air for the lungs night and day, and a skin kept clean and in vigorous action by daily washing and friction, and with such exercise as will not cause fatigue in the light and sunshine, we have the physical conditions of health and of cure. With these in a great majority of cases nature will do her work of purification and invigoration. Thousands who have read our books and followed the teachings they contain have become strong and healthy men and women. Here is a case—one of hundreds which have come to us—in a letter received while we are writing these pages. It is from an iron workman in Barrow-in-Furness.

"To Dr. Nichols,—Dear Sir, I am one of your disciples, to some extent following out your rules of health. No beef, beer, or tobacco. We have two children, who have never tasted meat or medicine. The eldest is nearly four years old. I think we have nearly all your books. As an iron turner in a marine-engine shop I have worked seventy and eighty hours a week for months together on a vegetarian diet, whereas before I adopted that system I could scarcely work fifty-four hours a week. Whenever I feel unwell I think it is caused by eating too much. Last year, as I could not find work at my trade from January to October, I laboured sixty hours a week in a corn-mill, and then was fireman on a passenger steamer, putting five tons of coal on three fires in four hours."

We have had similar testimonials from puddlers, miners, and other workmen engaged in the most laborious occupations.

Those who have any doubts on the diet question should read "How to Live on Sixpence a day," "Esoteric Anthropology," and the volumes of the *Herald of Health*. Those who doubt of the effects of a careful diet in promoting the cure of a great variety of diseases should read the medical testimony contained in our little work, "The Diet Cure."

The observance of the laws of health in food, drink, air, exercise, cleanliness, temperance, light, warmth, and all physical conditions, is all that is necessary for the preservation of health, and in a multitude of cases for the cure of disease. With such good living, and the avoidance of evil habits and practices of every kind, health is a natural consequence. But when life has been squandered or health lost by unavoidable calamities it is certain that its restoration may be aided by the help which the weak can take from the strong. There is the spiritual helping hand for those who can take hold of it.

ANOTHER VEGETARIAN RESTAURANT.

The Food Reform Restaurant Company, Limited, opened its first restaurant on Tuesday, September 7th, at 79 Chiswell Street, E.C., near one of the great thoroughfares, Finsbury Pavement and Finsbury Circus. A large company of ladies and gentlemen participated in the opening feast and ceremonies. It is in a good place, and with good cookery and management cannot fail of success.

This is, we believe, the seventh vegetarian restaurant in London, the first having been opened nearly two years ago, at 429 Oxford Street, a few doors west of Tottenham Court Road, which has been from the first day a prosperous and moderately profitable establishment, limited only by the impossibility of enlarging its premises. The others are widely scattered, so that they cannot possibly interfere with each other if there were ten times as many.

It is evident that they might be scattered over

business London half a mile apart before they could supply the demand that exists or will come. If one succeeds in one locality there is no reason why another should not do as well in another. People will not travel far for their mid-day meal. They take the handiest, best, and cheapest. They willingly try the experiment of a vegetarian diet, and if they find it relishing and nourishing, satisfying taste, appetite, and the requirements of the system, they persevere. That they do so find it is shown in the continued success of the oldest of these restaurants.

And there is no reason why a hundred should not succeed as well as seven. There is room enough and people enough who are glad to get a cheap and healthy diet. It is simply a matter of good management and good cookery. There is no reason why men should prefer the boiled or roasted bodies of dead animals to a more natural, pure, and healthy food of bread, fruit, pulse, and vegetables. The natural instincts of man tend in the right direction.

Flesh-eating is an artificial habit quite as much as the use of tobacco or intoxicating liquors. The thousands in this country who have tried a vegetable diet have found it healthy and satisfying, while millions—hundreds of millions even of our fellow subjects—never eat flesh, and look upon the practice with disgust and horror.

We hope, therefore, that the new restaurant in Chiswell Street will be thoroughly well conducted. If it is, it is sure to be a moral and financial success. Order and cleanliness, perfect ventilation, good catering, and good cookery are the requisites. People who come from counting-houses, offices, and shops for a mid-day meal want a light, airy, clean, and orderly place, and a thoroughly good dinner at a moderate price. A good dinner is one pretty to look at, pleasant to the taste, of easy digestion, and affording the required nourishment. For all this let us consider what is needed.

Good bread is the first requirement. The best white bread, to our taste, is made by the French and German bakers; but there is no doubt that the healthiest and heartiest is the genuine brown bread made of the whole meal of wheat. That furnished at 429 Oxford Street, is very good. Mr. Salsbury selects his own wheat, grinds it in his own gas-engine mill, and has it carefully made by a good baker. The aerated bread is fairly good—brown and white. Hill's bread is sweet, solid, and wholesome, but rather tough in the crust. The brown bread of most bakers is a detestable sham made by mixing bran with common flour. The best bread we have ever tasted is made of The Food of Health. That may be too costly for common use; but well made brown bread of the entire meal of good wheat ought to be had everywhere.

The next necessary of life is fruit, not as a luxury to finish off a meal, but as a substantial portion. Baked apples, stewed apples, plums, etc., fruit puddings, plainly made tarts, apple dumplings, stewed figs, stewed raisins, marmalade, etc., etc., may well make a good part of every meal. All nice fruits make pure blood, and being the natural food of man are full of the elements of a healthy life.

If people want a stronger food, containing more of the nitrogenous or flesh-forming element, there are the pulses, peas, beans, lentils, which will give them all they need. No kind of flesh will compare with them. They are too hearty for some, and dyspeptics must be careful not to eat them too freely. The cook also must do his duty thoroughly. They require long cooking—the longer the better. Baked beans may well stay all night in the oven. They improve in in flavour when cooked over and over.

Greens and salads are good, and are too much neglected. All plants of the cabbage kind are nourishing and anti-scorbutic. Raw cabbage is easier of digestion than when it is boiled, unless it is made very tender. Spinach and other greens are remedies for constipation.

Vegetable soups of all kinds are improved by the use of sugar and a corresponding portion of vinegar. By balancing these elements, with the careful addition of condiments good soups can be made in great variety both pleasant and wholesome. But those who will study "How to Cook" will find hundreds of dishes from which to make up any needed variety. It is not necessary to have a great number. A nice soup, a savoury dish, vegetables or greens, salad or celery, and a plate of fruit pudding, tart, or compote, must make a sufficient meal for any one.

The quantity of food really required to sustain the human system is not a large one. Dr. Tanner, in his forty days' fast lost one pound a day—but three-fourths of the weight of the human body is water. The solid food required to keep up his weight would have been, therefore, only four ounces. An active body and brain need more than this weight-sustaining minimum. We think twelve ounces of nutritive matter enough for brain work, and sixteen for any ordinary strain upon the muscular system. Abernethy allowed dyspeptic patients three meals a day of four ounces of "solid food" at a meal; but his solid food was not dry. People habitually train themselves to consume quite unnecessary quantities of food—several pounds a day. One English duke is said to have eaten four pounds of beef-steak every day for his dinner. There are savages who can devour twenty pounds. But the real needs of the healthy human body are very moderate. A ravenous appetite comes of bad health or bad habits.

Success to the new Restaurant, and to all of them, and many more. If they are well managed they are sure to do a great good. And there is room for a great number.

A TIPSY boy is a shame to his father, and a ten-year old smoker a disgrace to his mother.

GENERAL DIRECTIONS

FOR THE CURE OF ACUTE AND CHRONIC DISEASE, AND NECESSARY TO BE FOLLOWED WITH CARE BY THOSE WHO TAKE THE SYMPATHETIC REMEDIES.

ALL patients need some kind of daily bath—that is, a washing of the whole body with sponge, towel, the hands, or in any convenient manner. Persons who chill may be first washed with hot water, and then quickly sponged over with cold. A hot water bath with soap, which should be of the purest quality, followed by the cold rinsing, should be used at least once a week. After the bath, vigorous friction with rough towel. Children and adults who take a daily bath are less liable to colds or any kind of illness.

That the stomach may have time for digestion, and then a period of rest, the meals should be at least five hours apart. The craving for food between meals comes from the weakness and irritability of the stomach, which is best allayed by taking a gill of cold water in sips. This often stops a "Stomach cough," *i.e.*, a cough caused by irritation of the stomach in dyspepsia. It is best in all other cases to drink only when thirsty, and not from mere custom and habit, as at breakfast, tea, etc.

Water is the only drink for health; really the only liquid which dissolves food. It may, however, in many cases, be taken with fruit juices, as lemonade, orangeade, or poured hot on a little milk and sugar as a substitute for tea. Drink slowly. No invalid should take tea, coffee, beer, or spirits, or use tobacco, or any other narcotic. Few can bear chocolate, and when the liver is diseased even cocoa is injurious.

Three meals a day are enough for any, and too much for some patients. In bad cases of dyspepsia it is better to eat but twice a day. Some have confined themselves to one meal a day with great advantage. Where three meals are taken the last meal should be the lightest, because then the strength for digestion is least. An invalid should go to bed with an empty stomach, and have a long period of undisturbed rest and recuperation. Rest a quarter of an hour before and half an hour after a meal.

For breakfast take porridge of oatmeal, or, what is better for many, whole wheat meal, wheaten groats, brown bread, Food of Health, ripe fruit, raw or cooked, as baked apples, stewed prunes, stewed raisins, stewed figs. Strawberries, raspberries, grapes, and other ripe fruits are good in their season, as are oranges, tomatoes, lemons, etc. Porridge may be eaten with a little milk and sugar, or syrup. Genuine brown bread is good toasted, with a little hot milk poured over it.

Wheat should be finely or coarsely ground according to the state of the bowels. Food of Health or Wheaten Groats act as a gentle aperient, and their regular use, with fruit, will cure all cases of constipation. Enemas of cool water may be used if needful. If the bowels are relaxed, boiled rice may be used instead of wheat, and white bread instead of brown.

If flesh meat is taken let it be only at the midday meal, and only fresh lean beef, mutton, or poultry; no goose or duck. Fat meat, ham, bacon, pork in any form, and the more oily kinds of fish, as eels, mackerel, and salmon, must be avoided; also salted or smoked meats and fish. But the nearer all persons keep to a diet of bread, milk, and fruit, or their equivalents, the better for the preservation of health and its restoration. Eggs, lightly cooked, are similar to milk, but care is needed as to quantity. When the stomach is weak, milk drunk rapidly turns into a hard curd, which resists the gastric juice. Dyspeptics should take milk in sips and let it mingle with the saliva and other food.

Invalids should take but one vegetable at a meal with meat or fish, and but two without. Peas and beans, mealy potatoes, tomatoes, and onions are very nourishing, and make good dinner dishes. Bread, fruits, or plain puddings may be added. Bread and fruit only for the last meal usually called *Tea*. No invalid should take supper.

The proper quantity of food for an invalid must be found by experiment. Twelve ounces of solid food, such as bread or its equivalents, a day, are sufficient for most; but dyspeptics must take less, on account of the loss of power in the stomach and assimilating organs. In acute diseases the patient should take nothing but water until the violence of the symptoms is much abated. In all cases of chronic disease there is more or less of dyspepsia; and dyspepsia can be cured if the patient will give the stomach long intervals of rest, and always keep the quantity of food taken at a meal *within* the measure of the digestive power. Eat slowly, masticate thoroughly. When food is so taken it is easily dissolved, and a less quantity satisfies. Too much food, or food of difficult digestion, produces sourness of the stomach, heartburn, flatulence, stomach-cough, neuralgia, and sometimes epilepsy, and other cerebral and nervous symptoms. Pure food makes pure blood, and pure blood builds up a strong and healthy body. One ounce too much of food is a source of irritation and a needless draft upon the force of life.

Invalids may use a little salt and vinegar, but should avoid pickles, spices, and other condiments.

Live as much as you can in the air and sunshine, and enjoy the life-giving influences of light. The bed-room, if possible, should be open to the sun. Light is curative, and darkness a cause of disease. Breathe pure air night and day. To avoid draughts, let down the windows a short distance from the top, and ventilate by small openings, so as to diffuse the fresh air-currents. Throw back the shoulders, expand the chest, and get a habit of full breathing. Plenty of pure air to the lungs night and day gives life to the blood and purifies the whole body.

Exercise according to the strength, not in long wearying walks, which are exhausting to

the nervous system, but in short, brisk walks or plays, or in riding, driving, etc. Skipping the rope is a good exercise, as is almost any kind that quickens the circulation, makes us breathe more, and opens the pores of the skin. One of the best exercises, active and passive combined, is a good use of the flesh brush or rough towel over the whole body; so is a rapid pounding over all the chest and abdomen with the closed hands, which is good for stomach, liver, spleen, kidneys, and bowels.

Beds should be of hair, wool, manilla grass, or the like—not of feathers or down. Woollen clothing next to the skin, light or heavy according to the season, may be worn in England the year round with advantage. It should be changed at least once a week. All clothing that is worn during the day should be taken off at night, and well shaken and put to air on chairs, or hooks, and night clothes well aired during the day—not rolled up and put neatly and nastily away. Linen or calico worn next the skin needs changing oftener than woollen. Bed linen should be changed once a week, and beds, blankets, and pillows put often in the open air and sunshine—and well beaten. Typhus may be laid up in clothing, beds, and bedrooms, as well as in schools, churches, etc.

Invalids do well to rest frequently in a horizontal position, which favours an equilibrium of the circulation. Try to get plenty of sleep. Invalids need seven or eight hours. "Early to bed" is a good maxim, and to be in bed by ten o'clock is a good rule for all. Never go to bed with cold feet. Warm them with exercise, or dipping in cold water followed with friction or slapping them. A hot water bottle is better than to leave them cold.

No one can maintain or regain health without purity of thought, and consequent purity of life. To have "a sound mind in a sound body," both must be pure and chaste. Chastity is a condition of health—absolute continence is often an absolute condition of cure.

Mrs. Nichols promotes and expedites the cures of many cases with sympathetic and homœopathic remedies, and provides vermifuges when required.

For the prevention and cure of disease it is very desirable that all study the Laws of Heath.

CROOKED SPINES.

By Dio Lewis, A.M., M.D.

Of two sorts I speak, the *side* crook and the *forward* crook. The sideways sort is not very common, and is a girl's trouble; the forward sort is very common, and found in both sexes.

People are anxious about the *side* crook, and take the girl to a doctor; but they don't care much about the *forward* crook. They seem to think that the side crook is pretty bad, perhaps dangerous, but most everybody has got the forward curvature (stooping shoulders), and of course that can't be much.

Now the fact is, neither sort does much harm, except as it deranges the position of the organs within the body, and the forward sort does that more than the side curvature.

The spine has no more power to hold itself in position than has the mast of a ship. The mast must be kept upright by strong ropes, the spine by strong muscles. If either begins to give way you must strengthen the supports—the ropes or the muscles.

An ignorant doctor will tell you when you take a girl with a side curvature to him: "Cure her? why, of course I can. One of my £15 steel corsets will do it. I have treated 12,247 cases with this steel corset, and it never fails."

Now the fact is, he has never cured a single case. You may safely offer him £10,000 if he will cure you, the money to be paid when the cure is effected. Not only does he never cure a case, but he always makes it worse, and for the simple reason that the steel corset reduces the strength of the muscles. The weakness of the muscles having produced the crook in the spine, you are not likely to straighten the spine by making the muscles weaker. Does anybody doubt that squeezing the muscles with a steel corset will make them weaker? If anyone does he must have a funny kind of a mind.

To the superficial there is something plausible in the notion that if the spine sticks out one side all you need to do is to press hard against the point that sticks out, and force things back into the right place. Suppose this were true of the thigh bone, for instance, does anybody with a thimbleful of brains think it would prove true of the spine, which is made up of more than 20 little bones piled together upon each other? No! the muscles control the position of the spine! An immense amount of suffering and mischief have been inflicted upon the victims of spinal curvatures by corsets and braces.

But can nothing be done for a crooked spine? Shoulder-brace manufacturers will tell you that their machines will do it. So far as shoulder-braces simply remind you of your stooping and stimulate you to use your muscles to straighten yourself, they are useful; but so far as they actually hold your shoulders in position, thus dispensing with the muscles, they do mischief. But, it will be said, the pressure must be good so far as it goes! Why not keep up the pressure and exercise the muscles too?

Let us suppose that you make a pressure against the projecting part. That would be well enough provided the pressure were made by some one outside of you. I don't say it would do any good, but it would do little harm. But when you press against the projecting part of the spine, don't you see, unless you keep some one near you pressing against the part, that you must lace something about the chest—a corset—and that every pound you press against the projecting bone must be pressed against the other side; and, tenfold worse than that, must be squeezed about the chest, not only pressing the muscles so that they are every day made

thinner and weaker, but cramping the respiration so that the whole vital strength is reduced? It is a sad blunder.

The best treatment for any and every kind of spinal curvature is found in the practice of carrying a weight on the head. A sheepskin bag filled with sand is the best weight.

A girl with the side crook may begin with 10 pounds and increase gradually to 50 pounds. If the crook is the common one towards the right, she may walk about with her left hand steadying the bag. That position of the left arm adds to the efficacy of the weight.

The bag may be carried from 10 to 30 minutes in the morning, and about the same time before going to bed at night. The head must be kept erect, with the chin close to the neck.

Of course I need hardly say that the dress must be worn very loosely about the chest and waist. Within a few weeks the improvement will begin.

Of all possible measures this carrying a weight upon the head is the best calculated to produce an erect spine. There is one objection to it, and I fear it is a fatal objection, viz., *no doctor can make one penny out of it.—N. Y. Herald of Health.*

Saltaire, a manufacturing town in Yorkshire, has a population of 4,640, and not one public-house. Bessbrook, a manufacturing town in Ireland, has about the same population, and not one public-house. If two such towns, why not a hundred? If 9,000 people can live and flourish in great peace and comfort without a public-house, why not 90,000 or 900,000? Magistrates know perfectly well that any number of people are all the better in every possible way without such temptations. Upon what principle then do they grant licenses? Do the people demand them? Not at all. They are teased into signing petitions, and have not the firmness to refuse. No man wishes to have a public-house next door to him, or on the opposite side of the street. Why then should one be forced into such proximity? Why should not people be allowed to vote yes or no?

The following table of small-pox in London is extracted from the recently published Forty-first Annual Report of the Registrar-General. It shows to what extent compulsory vaccination has diminished small-pox in the metropolis:—

Periods of 10 Years.	Total Deaths in London.	Deaths from Small-Pox in London.	Number of Deaths from Small-Pox to 1,000 Deaths from all Causes.
1841-50	523,110	8,416	16
1851-60	610,473	7,150	11
1861-70	736,342	8,347	11
1871-79	710,869	15,076	21

(9 years only.)

The same report also records 35 deaths from "erysipelas after vaccination," and four from "cow-pox," all in children under one year of age.

SANITARY OBSERVATIONS.

By Dr. Nichols.

(From the Health Almanac, 1880.)

"As a man soweth that shall he also reap." "Ye cannot gather grapes of thorns nor figs of thistles." We cannot enjoy the blessings of health and longevity without using the appointed and natural means. Bad air, filth, bad diet, drink, and bad morals breed diseases, and shorten life. Of the children born in such conditions, half die in early infancy, and very few live out half their days. In some great towns the death-rate rises from 30 to 50 per 1000. The death-rate of a population living in sanitary habits and conditions should never exceed 15 per 1000. Sanitary reformers are working for the lowest death-rate and the longest life.

The conditions of health and causes of longevity are a sound constitution, pure air, pure water, a pure diet, temperance, comfortable clothing and shelter, exercise, freedom from anxiety, good habits, and happy associations. In seeking for health and long life, therefore, we have only to live in the best way—to seek for all that is good, and to avoid everything that is evil—the perfection of the physical and spiritual life. The most important of all sciences—the central science—is the Science of Life.

Our work is to raise the standard of health, to lengthen the term of life, to lower the rate of mortality, to prevent the pain and loss of disease, and to point out the means of health, comfort, prosperity, and happiness.

If the stomach, and skin, and lungs are kept in good condition, we need not care much for the rest of the body. Good shoes and stockings, and a brisk run or hearty breakdown will ensure warm feet, and when the feet are warm, the head is cool. I strongly recommend a skipping rope to all nice girls, and I think it also good for boys; lively exercise is better for many than long walks. Invalids have not the strength to walk far, but they need brisk exercise, or else to be well rubbed, to excite the external circulation. Dress for comfort. Live and sleep in a good sweet air, but not in a chilling draught; a bedroom window let down one inch from the top will harm nobody, and keep up a very good ventilation. In cold weather the night air is as pure and wholesome as that of the day. What is the fresh sweet air of the morning but the night air lighted up by the coming day?

The unsanitary temptations of winter time are to breathe impure air, to take too little exercise, to eat too much, and to drink stimulating drinks. The less exercise we have, the more temperance we should exercise in eating and drinking. As we grow old we must eat less, because we have less vital force to enable us to dispose of superfluous matter. As a rule, all eat more than is good for them. A wise man finds out by careful experiments how much he needs, and takes no more; one ounce more than is needful involves a waste of life.

A GARDEN is a source of health in the varied exercise it gives, the pleasant hopeful interest it excites, the fresh air and sunshine we get in it, and, perhaps, in a certain sympathy between the life of man and the life of plants and flowers. Plants purify the air by absorbing carbonic acid, and they enliven it by giving out oxygen. Certain odorous flowers are said to make ozone. Life elements are attracted by the trees and plants. Every pointed leaf is a conductor of electricity. As man was placed in the garden that he might tend to keep it, and live upon its fruits, it is his most healthful and delightful occupation. The healthful and delightful go together. Whatever promotes happiness promotes health, and *vice versa*. People say—"Be good and you will be happy;" we say—"Be healthy and you will be happy—be happy and you will be healthy." Obey the simple, natural laws of your being and you will be both. Every deviation from health or happiness comes of some wrong doing, our own, or that of our progenitors. It is as simple as two and two make four. Every effect has its cause.

If we make gardens in March, we must not be in a hurry to take off our flannels; we must not be less temperate if we take more exercise.

It is best not to stimulate at all. To eat moderately of pure, simple, plain food—food that will not heat the blood or make gross humours.

It is better not to devour the dead bodies of animals, which are often diseased, and always tend to putrefaction. A diet composed of grains pulse, fruits, and vegetables is much more wholesome. Pound for pound, cheese has more than five times the flesh-forming nutriment of bacon.

PEOPLE who know most of water are least afraid of it. Those who take a good cold bath every morning do not mind a passing shower. People whose skins are kept in good condition do not take cold. Getting wet is nothing—but sitting in a draught afterwards, and being chilled by the evaporation, may be dangerous. So long as people keep warm with exercise they never take colds. It is our experience that in nine cases in ten colds are taken when people have been poisoned with bad air, or when the vital force is absorbed by the stomach after a hearty meal. Colds are caught from draughts in or on coming from crowded or unventilated theatres, or after heavy dinners. In such cases people are often struck down with apoplexy or paralysis.

With an active skin, careful eating, abstinence from intoxicants, and pure air, one is in little danger of colds, or of any kind of diseases. People who will learn even the first principles of physiology have no need of doctors or drugs. In the pure and healthful climate of these islands no one should ever suffer from disease; and the rule should be a long and healthy life, instead of it being as now a rare exception.

But there is a progress. A mere change in the air of some towns by sanitary improvements, has doubled the life of their inhabitants—lessened by one half the annual mortality.

DARKNESS is death and light is life, alike for the vegetable and animal world. Get all the sunshine that you can, live out of doors, and do not shut it out of your dwellings. Children and flowers alike need plenty of light. Invalids should lie in the sun. It is best to sleep in well lighted as well as ventilated rooms, and the less of blinds or curtains we have the better.

It is well to rise with the lark, provided we can lie down with the lamb. It is delightful to be up and at work where we can hear all the birds singing at four o'clock of a bright, sweet May morning, when the ball goers of the London season are saying good-bye, and going yawning home to bed. Such turning night into day, and shutting out day for sleep, is an insult to Nature, and to the Author of Nature. Breathing the fumes of gas and the crowd-poison of even the most fashionable assembly, eating suppers at midnight, keeping up life on stimulants, and then drowsing in darkened rooms through the glorious summer days is not the way to health and happiness. It is unnatural, absurd, and wicked.

Parliament sets the bad example. The House of Commons meets at 4 p.m. Little is done except to dine and drink wine until nine. The members go home at 8 or 4 o'clock in the morning. This is not healthy for the members nor for the nation. Public houses close at 12.30, but M.P.'s can get their refreshments at all hours. The better rule is—"Work while it is called to-day."

STRAWBERRIES and all sub-acid summer fruits purify the blood. Tender vegetables suit well the human stomach. They who eat freely of both never need drugs. The French do well with their "grape cure;" we can do quite as well with our strawberry cure, keeping on with all the succeeding fruits. No ship's crew supplied with fruits or their substitutes, green vegetables, ever had the scurvy. All kinds of blood poisonings are cured by fruit, or by a vegetarian diet into which fruit largely enters. Some who can get well no other way do so by living wholly on fruit. With it even cancer can be held at bay. Wise doctors hold that neither cancer or consumption, nor ulceration of the stomach can be cured on a flesh diet.

Summer is the season of health, not only because of its warmth and light, but because it brings us so much of healthy food. Pure food makes pure blood; pure blood builds up a healthy body. "The Food of Health" or good brown bread, milk, and fruit constitute perhaps the most perfectly healthful diet. Some dispense with the milk and live on bread and fruit. All who would know the medicinal marvels of pure foods should read "The Diet Cure."

We are not writing of a plate of strawberries after a full meal of fish, flesh, and fowl. *Then* fruit is likely to cause indigestion. Fruit goes well with farinaceous substances. All vegetable eating animals are fond of fruit. Lions and tigers do not care for grapes or strawberries.

MANY of our organs are buried deep in our bodies; those we can get at, and do something to regulate, are the lungs, with the air we breathe, the stomach and alimentary canal by what we eat or drink, and the great surface of the skin with its myriad pores, glands, nerves, and blood-vessels. The skin has more to do than all the rest in purifying the blood, and removing the elements of disease from the whole body. Summer is the time for an active skin, and we can greatly help its work by daily bathing. The ocean is a good bath if you can get to it—but a tub or a basin will do. Salt water is more stimulating than fresh, but a package of "Brill" is a good substitute for the salt sea. To make one's self clean with a cleanliness that reaches deep, try hot water and the "Sanitary Soap." Until one has used that he does not know what it is to wash and be clean. With the bath do not neglect a free rubbing of the whole body. After hot water a dash of cold, and then rough towels from top to toe. If disease lies deep, if the nerves are aching with gout, or rheumatism, or "neuralgia," the hot air bath may be needed to expedite the cure; but in whatever way it is done, the matter must come out through the skin. This is Nature's method, and these are the means of aiding Nature to do her work.

A Turkish bath in Jermyn Street costs about five shillings. It is delightful, but you can get one almost as good for a penny's worth of gas or methylated spirits, in your own bedroom. People can be cured at all seasons, but we advise them to make the most of the genial summer time.

OF the four millions in London, of the twenty millions of England, how many ever get a month's holiday? There must always be a very small percentage. Our work as sanitary reformers is to make all towns, all streets, all dwellings pure and healthful. If each one will make his body, his diet, his clothing, and all his surroundings quite clean, that will be so much towards a general reformation. Then go for a purification of streets, drains, and all surroundings. Cleanliness is the synonym of health. Soap and water have banished the plague, and perfect cleanliness will banish all foul diseases.

For jaded nerves and weary brains we want rest. For the diseases of care and anxiety we want hope, and assurance of the necessaries of life. All reforms are needed, moral reform, social reform, and sanitary reform—all go together. Possibly a little political reform may be needed. Overwork is bad, but worse is overworry. The great body of the people, in order to a true enjoyment of life, want land or work.

Then industry, temperance, education, and health can scarcely fail to give them happiness.

A family in a clean cottage, with a nice garden, assured of all necessaries of life, can make itself very happy singing, "There's no place like home."

WE might always have food enough for health, if we never ate nor drank more than health requires. The only real drink—the only drink man or any animal ever needs—is water. That costs nothing. Beer, wine, spirits are very costly, and destructive of health and morals. We are said to pay £140,000,000 a-year for intoxicating liquors, which cause a vast amount of disease, poverty, vice, crime, insanity, and misery. The doctors say that sixty thousand die yearly of drink. The waste of land, of grain, of labour is very great. Tea, coffee, tobacco, if not so demoralising and destructive, are costly and are not necessary. Millions are spent upon a needless diet of flesh, which people would be better without, since a diet composed of vegetable products is more healthful. On such a diet, were all hurtful luxuries dispensed with, these islands could feed a much larger population and enjoy higher health and greater prosperity. The harvest time makes us think of all these things. Perhaps the healthiest and happiest life in this world is that of people who work upon the land and live upon the products of the earth, air, and sunshine. It comes nearest to the Eden life when there were no butchers' shops and no public-houses—no doctors and no drugs. We may not be able to restore Eden in all its purity and happiness, but we are to do what we can to bring the time when the will of God shall be done "on earth as it is in heaven."

APPLES are excellent food. Many have lived for long periods of time entirely upon apples. A friend of ours walked from Liverpool to Cornwall, then to London, then back to Liverpool, at the rate of about thirty miles a-day, living all the time upon raw apples. Many people in England and America have found great benefit to health by living entirely on a fruit diet. Some add nuts to fruit. Our apples, pears, plums, apricots, etc., give an excellent variety.

In other countries people live on grapes, figs, dates, bananas, and a hundred delicious fruits. In the West Indies some years ago a planter found that twelve acres of plantain trees gave abundant food to three hundred negroes.

Apples and grapes are excellent food, but cider and wine afford very little nourishment. Their value as food is destroyed by fermentation. Even in raising bread ten per cent. of the nutriment of the wheat is lost by being converted into carbonic acid and alcohol. Then the best part of the wheat, and what is most needful to health, is thrown away by "dressing" it, so as to make white bread instead of brown. A century ago every baker made brown bread of the whole meal of wheat, it was the common food of the people.

One of the best and healthiest dishes that can be made is a pudding or dumplings of brown wheat meal, or brown bread, with apples and pears.

Oh, for the time when every family can have its orchard or great garden, with a supply of fruit to last all the year round!

CHEERFULNESS is a condition of health, and health of cheerfulness. Serenity is a quality of the soul, but it depends a good deal upon the body. It may be cultivated, like other faculties. First, a good digestion—for melancholy comes of a bad stomach and, in consequence, a bad liver. "Keep up a good heart," we say. "There is bad blood between them." The most terrible of manias come from drink; with delirium tremens and murderous manias we find inflamed stomachs, granulated livers, congested kidneys, fatty degeneration of the heart. All these may come of bad eating and bad drinking.

No careful liver can fall into dyspeptic melancholy. No natural drinker will have the horrors that come of drink. The best remedy for mental disease is, first to keep in health, and then to think as much of the welfare of others as of our own. Our work in this world is to make it better. In proportion as we do good to others we benefit ourselves. The selfish are the miserable. The Irish doctor was right—men do well who keep "a clean skin, a clean stomach, and a clean conscience."

WE do not know why people should eat prize cattle at Christmastide, nor why they make high holiday of Good Friday. It is certain that there is nothing Christian in either. A large portion of the flesh eaten at Christmas is that of diseased animals, ready to die of fatty degeneration. The flesh of diseased cattle and prize pigs will not make healthy men. And we advise our readers to beware of the geese they distribute to clubs at public-houses. It is the dearest meat ever eaten in England, and the most demoralising and unhealthy. All geese in public-houses have bad livers. Public-houses are stuffed with bad livers. Every public-house is a *paté de foie gras*. It is no wonder that the doctors find the weeks that follow Christmas the busiest of the year. The undertakers' books show a mournful array of figures.

But if we could suppress the bad eating and drinking all the rest would be more delightful—the cheerful lights, the merry music, the holly and mistletoe, the pleasant games, the happy greetings. Why spoil all these by the two deadly, deathly sins of gluttony and drunkenness? Christ was not born that people might eat and drink more than is good for them. Why celebrate the birth of the Babe of Bethlehem with the riotous eating of flesh and bacchanalian orgies? What is the relation of the Babe in the Manger to the goose club at the public, or the roast beef and plum pudding—stall fed and diseased obesity, and the most indigestible compound ever invented by the demon of dyspepsia?

IN nine cases in ten, the best medicine we can take is a glass of pure water—a bath to the stomach and the blood. It is the one element that cleanses and refreshes alike the mucous membrane and the skin, and purifies and therefore strengthens every organ of the body.

WHAT BYRON DIED OF.

THE new Byron statue in Hyde Park is not very satisfactory. A critic says it will be laughed at from one end of Europe to the other. Greece, for which he died, should have sent him a more worthy monument; but Greece is content to sell her old statues. She does not make new ones.

Poor Byron died of the doctors whom he justly dreaded. "Don't let the blundering blockhead doctors bleed me!" he said to Trelawney. But they got at him. He was copiously bled, and died. With almost his last breath he said they had assassinated him.

When Trelawney came back he said to Byron's servant, "What did the doctors do, Parry, with Lord Byron?"

"Do! Why, they physicked and bled him to death. My lord called them assassins to their faces; and so they are!"

"The fashion at that time," continues Trelawney, "was bleeding, blistering, and killing people with aperients; and this treatment to a patient so sensitive, attenuated, and feeble as Byron was certain death.

"Nature makes no mistakes—doctors do. Probably I owe my life to a sound constitution, and having had no doctor."

PROFESSOR NEWMAN favours us, through the *Dietetic Reformer*, with some good advice on cookery. He says nearly all our stone fruit is picked sadly unripe. Damsons allowed to ripen on the tree are quite like a different fruit from what are offered in the market. But except in a private and well-walled garden, the owner is sure to pick them prematurely: first, lest they be stolen; secondly, lest they be hurtfully bruised in conveyance to market. In consequence, all such fruit and all unripe fruit needs slowbaking. Whether to be baked *before* putting under a crust, I leave cooks to decide. About 25 or more years ago, I learnt from friendly Hungarian exiles that they cooked cabbage, seakale, celery, and leaves of every kind fully three times as much as we do. They avowed that the English eat such things *raw*. In my experience the much-despised cabbage is palatable, wholesome, and a valuable food, if thoroughly dressed, and a morsel of (salt) butter added, nor do I despise a small portion of pepper. The outer leaves of cauliflowers are as nice as spinach, if prepared as spinach. Professor Mayor, at Cambridge, lately gave us nettles so dressed, and very good they were. A French tradesman cooks his own dinner while attending on his shop, and cooks elaborately, because slowly. We agree with this. Stoned fruits are indigestible because unripe. French prunes are ripe and slowly cooked in the process of drying, and therefore perfectly digestible, and one of the best kinds of opening food we have. The Brown Betty, or fruit and bread pudding, needs a long thorough baking, when it is healthy and delicious.

THE FOOD OF HEALTH.

THE following cases of the efficacy of DR. NICHOLS' FOOD OF HEALTH appeared in the *Herald of Health* for October, 1880. It happens that both cases are within our knowledge—that is, we are well acquainted with the lady who wonderfully recovered, after being literally abandoned by three physicians; and the other case is that of a patient of Mrs. Nichols', who has risen from a state of seemingly hopeless debility, under her hygienic and hydropathic treatment and the use of her sympathetic remedies. In the first case the action of the Food was very remarkable, as was also the instinctive desire for it when no other could be retained. In the second the small quantity which sufficed for life, and the progressive restoration of health, are what many would call miraculous. This lady also followed her own instincts or intuitions, and with the happiest results.

A CURIOUS case, in which the preparation of farinaceous aliment to which we give the name of "Food of Health" became apparently a food of life, has just been related to us, and will, we hope, interest our readers.

In one of the pretty towns of the Isle of Wight, a lady was dying of hemorrhage from an unfortunate miscarriage. Three doctors had given her up to die, declaring that nothing more could be done. They left her bedside, saying that it was a hopeless case, that no human skill could save her, and that it was only a matter of moments when she would breathe her last. Her husband clung to her in sheer desperation, chafing her limbs, and giving her what he could of his life. As she hovered between life and death he tried to give her some food, but her stomach could not retain it. When several things had been tried in vain, she got strength to whisper "*Food of Health.*" He rushed from her bedside to the nearest chemist's, bought a packet, quickly prepared some himself, and brought it to the pale, exhausted, bloodless woman. She was able to swallow, retain, and digest it, and from that moment began to recover, and in a few weeks was able to come and with her own lips tell us this story.

And this case, striking as it is, is one of many, in which the Food of Health has justified the name we gave to it. But it has some other lessons. It shows the sad condition of medical science in a great emergency. Three medical men, the best a fashionable town could furnish, could do absolutely nothing to save the life of a beautiful woman—a wife to her husband, a mother to her children. They were as helpless as the Paris doctors in the case of poor Miss Neilson. They literally left her to die. The devotion of her husband and her own instinctive wisdom saved her life. She had used the Food of Health years before, and felt that it would give her life. Instinct or inspiration, it proved to be just what she needed—a natural food which began to supply the lost blood, the moment it was in the stomach.

That the Food of Health is the best of food for daily use we have no doubt at all. We have eaten it every day, when at home, for years, and found it always a staff of life—pleasant, satisfying, health-giving. In bread, biscuit, porridge, and every form, it is, we believe, a perfect food, making the purest blood, and building up every tissue of the body.

MESSRS. FRANKS & Co., purveyors of Dr. Nichols' Food of Health, have received from a young lady the following statement for publication:—

"It is with much pleasure and a heart full of gratitude that I add my testimony to the merits of the Food of Health, feeling sure there are few who have given it a longer trial or depended more entirely upon it for sustenance. My case is but the sad story of so many hundreds.

"When very young I fell ill, the result of overstudy and ignorance of the laws of health. My medical attendant failed to do me any good. Year after year I consulted the most eminent London and local physicians, only to hear the same hackneyed phrases: 'You must take everything nourishing to strengthen you,' 'Little and often will suit you best,' etc., and the oft-repeated assurance that I was 'very low.' All did their best for me, or rather their worst, until I was stuffed and doctored into chronic invalidism.

"Years after, in the kind providence of Him whose tender mercies are over all His works, I had the HERALD OF HEALTH lent me by a friend. It came to me as a bright-winged and heaven-sent messenger, bringing hope and a promise of future good to my weary heart. That one little paper, which only cost one penny, was of priceless value to me, and better than all the prescriptions of the most distinguished F.R.C.P.

"I became the patient of a wise and skilful physician—the wisest and kindest it has ever been my lot to know—and I learnt that *rest* was the one thing that would cure dyspepsia. For nearly two years I fasted upon three ounces of the Food of Health with a very little milk and fruit. At first I could not digest even this small quantity without intense suffering; but under the soothing influences of water treatment and this bland, nourishing food, the nutritive system gained so much strength that I was able, at the end of two years, to take eggs, bread (which I could not touch before), and any vegetables. Thus the Food of Health, with baths, strict attention to health rules, and last, but not least, the wise and loving care of my good physician, accomplished what everything else had failed to do.

"Curiosity prompted me to show it to one of my medical friends on one occasion. He inspected it in silence, read the remarks on the yellow wrapper, and, with an incredulous smile, said, '*If* it would do all it is represented to it is

worth a trial.' Now, after a long experience I can confidently indorse all the statements of the inventor concerning it, knowing that each word is truth, and that too much cannot be said in favour of its nourishing, health-promoting, and curative properties.

"If all dyspeptics and invalids would renounce every hurtful thing, and give this Food a long trial, their diseases would vanish as the early dew in the morning sunshine, and in most cases health would be their reward. Then the learned members of the medical profession would have a grand holiday, and find time to experiment on themselves, for many of them need dietetic treatment as much as their patients.

"In conclusion, allow me to add that I shall be most happy to give my name and any further particulars to those who desire it. There may be some who will read my testimonial and long to reform their life by adopting a purer diet; for all such I feel a ready sympathy, and would do anything in my power to help them on to health and happiness. I cordially invite all sufferers, who are the victims of a false and ignorant system of therapeutics, to write me, if my experience will be of the least use to them.

"Messrs. Franks & Co. will hold my name and address."

If we use up our life-force in brain work we have little left for muscle—and *vice versa*.

No day should pass without eating a certain proportion of fruit. When fresh fruits are not at hand, or are dear, try Dr. Gull's favourite—and ours. Raisins at 4d. a-pound are about equal to grapes at 1d. Soak them in water all night, stew gently an hour in the morning, and you have one of the most delicious compotes in the world—a food as healthful as it is delicious. Dried figs, treated in the same fashion, are delectable.

Suppose a case. Suppose that a majority of the medical profession believed that cutting off a child's ears would perfectly protect it from dying of consumption. Suppose Parliament, at the instigation of the doctors, made ear-cropping compulsory. Suppose three-fourths of the patients in consumptive hospitals had had their ears cropped. Suppose the doctors insisted that one cropping was no security, but that they should be re-cropped every three or five years. Suppose that this cropping and re-cropping appeared to be the cause of other fatal diseases. Suppose that parents who preferred whole ears to cropped ones could protect them if they had money to pay the fines. What would be thought of a Government that made ear-cropping compulsory by law? But this supposition does not meet the facts. We must suppose the ears to be cropped with knives or shears dipped in venom, and that, by the operation, foul, dangerous, and often fatal diseases, were communicated. In such a case, ear-cropping, whatever its promised advantages, would be likely to make a little clamour.

HEALTH BREVITIES.

By Dr. Nichols.

(From the Health Almanack, 1880.)

Cultivate the art of cheerfulness.

Care kills more than consumption.

Medicine has had as many fashions as dress.

The best medicine the doctor ever brings is a strong dose of hope.

The strong radiate strength, as the cheerful radiate cheerfulness.

You cannot eat your cake and have it: you cannot waste your vital force and still keep it for use.

There is only one incurable disease—old age, but it is the one most rarely registered in the bills of mortality.

In nine cases in ten a bad temper is a sign of disease. As a rule, healthy people are cheerful and good-natured.

A warm bath quiets irritability; a cold one tones and strengthens. The cold may well follow the warm.

A lady writes from Texas that with a supply of Dr. Nichols' Sanitary Soap she cured eruptions, sores, scalds, and burns for miles around until her stock was exhausted.

Half the nervous disorders of women are due to the monotony of their lives; the other half, perhaps, to excess of excitement. The healthy are between the two extremes.

The older we get the more careful we ought to be to avoid excess. When the stomach gets weak we must give it less to do. Happily we need less food as we have less digestion.

The horse, the ox, the deer, the elephant, the rhinoceros, the camel; the strongest, fleetest, most enduring, and most useful animals in the world live upon a purely vegetable diet.

Better one acre of garden than ten acres of pasture. No food is so costly as flesh. The land that will feed one million on flesh will feed ten millions on grain, fruits, and vegetables.

Cleanliness is, no doubt, akin to godliness. Every globule of the blood should be clean. Pure food makes pure blood. Pure water washes the inmost fibres of the body. Pure air burns up waste matter of muscle and brain. A clean skin and open pores make a clear mind and healthy body.

Drink costs the United Kingdom £140,000,000 a-year; tobacco costs £15,000,000. Other mere luxuries, and more or less hurtful luxuries of eating and drinking, cost as much more. We complain of hard times when we spend three times the needful cost of living on things which destroy health and shorten life.

To keep warm in winter, and avoid chills, colds, bronchitis, rheumatism, the skin must be kept active. Nothing toughens the skin like a daily bath and a good rubbing all over with a rough towel or brush. The body glows, the blood circulates freely. A hot-air bath, which can be taken anywhere with a gas-stove or spirit-lamp under a chair, will in a few days cure any ordinary cold or rheumatism.

Consumption is caused, in nine cases in ten, by breathing bad air.

The most utter waste of life is fretting over troubles that never come.

The highest sources of health are these three: "Faith, Hope, and Charity."

A healthy nurse does more good to the patient than all his medicines.

Three hours of brain work exhaust as much as nine hours of physical labour.

We hear much of contagious and epidemic diseases, but forget that health may be equally contagious and epidemic.

Since the world is better on the whole now than it was a century ago, we have a right to believe in continual progress.

The more fruit we eat, and the less we take of any kind of stimulant, the purer will be our blood, and the better our health.

"How to Cook" (6d. or 1s.), contains more than two hundred recipes for dishes of vegetables and fruit. Any clever girl can become a first-rate cook by reading it.

The most enlightened scientists and physicians in England are now giving their testimony to the sufficiency, the healthfulness, and the economy of a vegetarian diet.

As soon as people are ready for prosperity they will be prosperous. Wealth comes to those who can use it wisely, and very properly flies from those who abuse it.

The true causes of death are seldom recorded in the statistics of mortality. The Registrar-General gets only effects. What people really die of are bad air, bad food, bad drink, and bad habits.

Every young man who can stop 5s. 3d. out of his beer and tobacco should buy "Esoteric Anthropology." It will prevent his ever saying, "If I had but known," when such regrets are unavailing.

Life is full of waste, but the most terrible of all is the waste of life. Unhappily the young discover this only when life is wasted. Still what remains of life can be preserved—very often it can be increased.

Nature cures our diseases if we only let her have her way. There were no physicians in Rome for the first five centuries. The people were too healthy to need them. Then came luxury, diseases, doctors and death.

The microscope has shown us that the decay and pain in teeth are caused by the growth of fungus. Cleaning the teeth with Dr. Nichols' Sanitary Soap kills this fungus. Consequently it stops the decay and cures the pain.

Children who live upon the "Food of Health" never need physic, simply because it is a perfect food, preventing all diseases, and even curing them where they exist. It can be cooked in every way, and in every way is both healthful and delicious.

The best security against disease of the lungs is to breathe pure air and plenty of it.

The brain is one-fortieth of the weight of the body; it receives one-fifth of the blood.

Coroners have begun to register deaths from compression of the liver by tight lacing.

The only natural death is death by old age. All others are unnatural and preventible.

If you spend all your substance on anti-fat, you will naturally pine away to a skeleton.

What seems a craving for food is often but irritation or inflammation which a drink of water will allay. A single swallow acts like magic.

Can consumption be cured? We know cases in which abscesses in the lungs have got well, and the patients have lived to a good old age.

Can cancer be cured? We know cases in which schirrous tumours tending to cancer have been arrested, and kept free from pain or danger.

The finest cosmetic is absolute cleanliness. A pure blood makes a healthy and beautiful complexion; reciprocally a clean skin purifies the blood. There is little doubt that the Sanitary Soap is best for the toilet, as its use is followed by a permanent and living fragrance.

Our opinion is that in nine cases in ten the development of cancer and consumption can be arrested, if taken in time, and indefinitely postponed. But we know of no drug that has the least efficacy in one case or the other. In each the cure of the disease depends upon the two great natural processes—Purification and invigoration. He who can command these is the best physician.

Hindoo Girls.—The Hindoo girls are graceful and exquisitely formed. From their earliest childhood they are accustomed to carry burdens on their heads. The water for family use is always brought by the girls in earthen jars carefully poised in this way. This exercise is said to strengthen the muscles of the back, while the chest is thrown forward. No crooked backs are seen in Hindostan. Dr. Henry Spry, one of the Company's medical officers, says, "This exercise of carrying small vessels of water on the head might be advantageously introduced into our boarding and private families, and that it might entirely supersede the present machinery of dumbbells, blackboards, skipping ropes, etc. The young lady ought to be taught to carry the jar as these Hindoo women do, without ever touching it with their hands." The same practice of carrying water leads to precisely the same results in the south of Spain, and in the south of Italy as in India. A Neapolitan female peasant will carry on her head a vessel full of water to the very brim, over a rough road, and not spill a drop of it; and the acquisition of this art or knack gives her the same erect and elastic gait and the same expanded chest and well-formed back and shoulders.

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Mr. GEORGE SAVAGE, proprietor of a Restaurant in Waterloo Road, S.E., has tested Eggs preserved by this process, which he has had in his possession more than two years, and found them sound and good.

Mr. ARLISS ANDREWS, the well-known Printer, 31 Museum Street, has carefully examined Eggs kept under his own seal for nine months, and found them sound and good.

By this process, for which steps have been taken to secure Letters Patent, Eggs can be preserved in liquid, and so kept stored for any period, and then packed dry in boxes, for transportation, so as to be sent from one country to another, or round the world. *Ships may be supplied with stocks of Fresh Eggs for daily use on the longest voyages.* The dry process, however, requires apparatus and skill, while the other is so simple that any child can understand and manage it; and it is the most convenient and best for families, tradesmen, and all but the largest dealers.

To preserve Eggs fresh, as they are laid from day to day, it is necessary only to have a jar, crock, cask, tank—any clean vessel that will hold the quantity of Eggs to be preserved. Into this vessel put clean water, at the rate of 1 gallon for every 80 Eggs, or 12 gallons for 1000; but as the Eggs require almost exactly the same space as the water, the vessel must in no case be more than half full before the Eggs are put in. Into the water put the prescribed quantity of the PATENT EGG PRESERVER, stirring it from time to time for three days. Keep in a cold place, and cover so as to diminish evaporation. Place the Eggs, as laid or purchased, but washed clean of any impurities, in this solution, and let them remain until required for use. The Eggs will keep for some weeks after removal; but, when convenient, it is better to let them remain in the solution.

As the materials for the solution require to be pure and genuine in quality, and *combined in accurate proportions*, and as some of them cannot be everywhere obtained, they are furnished in combination, ready for use, and *warranted to do their work. Every package will perfectly preserve the number of Eggs for which it is prepared for years.* Water may be added to the solution to make up for evaporation.

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Description.

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Uses.

By means of the Portable Turkish or Hot-air Bath, and Russian or Vapour Bath, every family and every person may enjoy their inestimable advantages in the country, in travelling, by their own firesides, in bed-room or dressing-room. It can be prepared anywhere in two minutes, taken without assistance, or given to patients—children or adults.

The Turkish or Hot-air Bath cleanses the skin, opens the pores, quickens and equalises the circulation, removes common colds, congestions, and inflammations, rheumatisms, neuralgia, stimulates digestion, and is a preventive and cure of many diseases.

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Directions.

If the tent supporter is used, screw the iron clamp to the back of a common chair (over or under the top, but with the screws behind it), fitting it with folds of paper or linen, so that it will be firm and perpendicular. Fit the squared iron rod upright in the clamp, and fasten the curved arms upon its top, bending forward. Then fasten the arms above the patient's shoulders as he sits in the chair.

The chair should have a plain wooden seat, on the centre of the bottom of which may be tacked a sheet of iron or tin, to protect it from being charred by heat. A cane-bottomed chair may be used, if a board, similarly protected, be placed under the seat. On the seat should be laid a folded towel.

On the floor, under the centre of the seat, place the gas stove so as to connect by the tube with a burner, so as to get a full current of gas; or, in the absence of gas, the spirit lamp, filled with methylated spirits or pure alcohol.

Let the patient remove his clothing, and put on the tent, the fastening-string, or longest part, *before*, and tie it comfortably tight around the neck. Light the gas or lamp; then, throwing the tent rope over the iron arms and back of the chair, sit with his head in the centre of the arms, so that the tent is evenly supported clear of his shoulders, and everywhere touching the floor. If the supporter is not used, let the robe enclose the chair.

If a Russian or vapour bath is desired, any shallow vessel containing a pint of *hot* water is placed over the gas stove or lamp, either at the beginning or after the patient is warmed with the hot air alone.

The action of either bath is more rapid and powerful, if the feet of the patient are placed in a vessel of hot water, to which boiling water may be added as required; or the vessel may be placed over a lamp which will gradually raise its temperature. This foot bath relieves any tendency to headache, which may also be prevented or allayed by wetting the head with cold water before or during the bath, or applying to it a sponge or towel wrung out of cold water. Great relief is given by applying cold water to the lower back of the head, the top front, and also to the pit of the stomach. The patient may be rubbed during the bath by a nurse or assistant passing the hand through an arm hole in the side of the tent.

Generally the patient will perspire freely in ten or fifteen minutes, and the bath may be taken twenty or thirty minutes, or longer, according to the condition of the patient, and the quickness and fulness of perspiration. It should never, except in very urgent cases, be carried to discomfort and exhaustion; but in croup, quinsy, suppressed smallpox or measles, obstinate congestions, chronic bronchitis, and similar conditions, there should be a full and powerful action, and in hydrophobia it can scarcely be continued too long or at too high a temperature, so that the patient can endure it, since a desperate disease requires a desperate remedy.

In all contagious diseases, and all cases of blood poisoning, hereditary or otherwise, one of these baths should be taken daily, or at longer intervals, according to the condition of the patient, until he is thoroughly purified and cured.

In all cases, when the patient comes out of the hot-air or vapour bath, he should take a sponge bath, towel bath, or some kind of washing of the whole body in cold water, to give tone to the skin and superficial nerves. The sensation of this finishing ablution is delightful, and it should never be omitted. It should be followed by a brisk rubbing with coarse towels.

No bath of any kind should be taken for half-an-hour before, nor for two hours after eating. The diet of all invalids, and of all persons who wish not to become invalids, should be moderate in quantity and pure in quality, with a large proportion of good bread (more brown than white), fruit, and vegetables. Dr. Nichols' SELF-RAISING WHOLE WHEAT MEAL enables every family to have pure Brown Bread ready for the Oven in One Minute. The meals should be not less than five hours apart, and, in most cases, should not exceed three a-day. Those whose sleep is disturbed should not eat within six hours of bed time. Persons liable to constipation should eat brown bread, wheat meal porridge, cooked and raw fruits, and opening vegetables. Dr. Nichols' FOOD OF HEALTH is cheap, nourishing, delicious, and a perfect cure for constipation and its attendant disorders. Dr. Nichols' WHEATEN GROATS are a more active remedy for intestinal paralysis. Those who wish to gain and maintain perfect health should avoid all narcotics and stimulants of every description.

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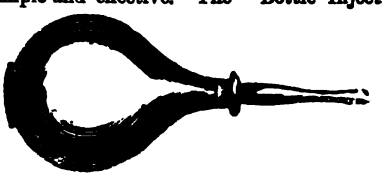
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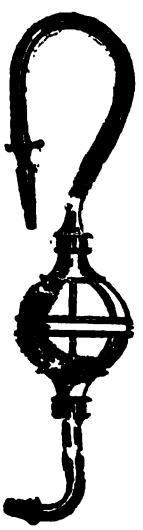
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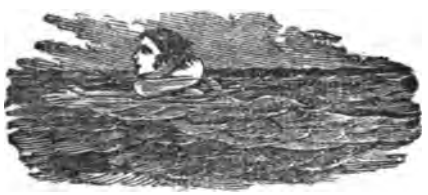
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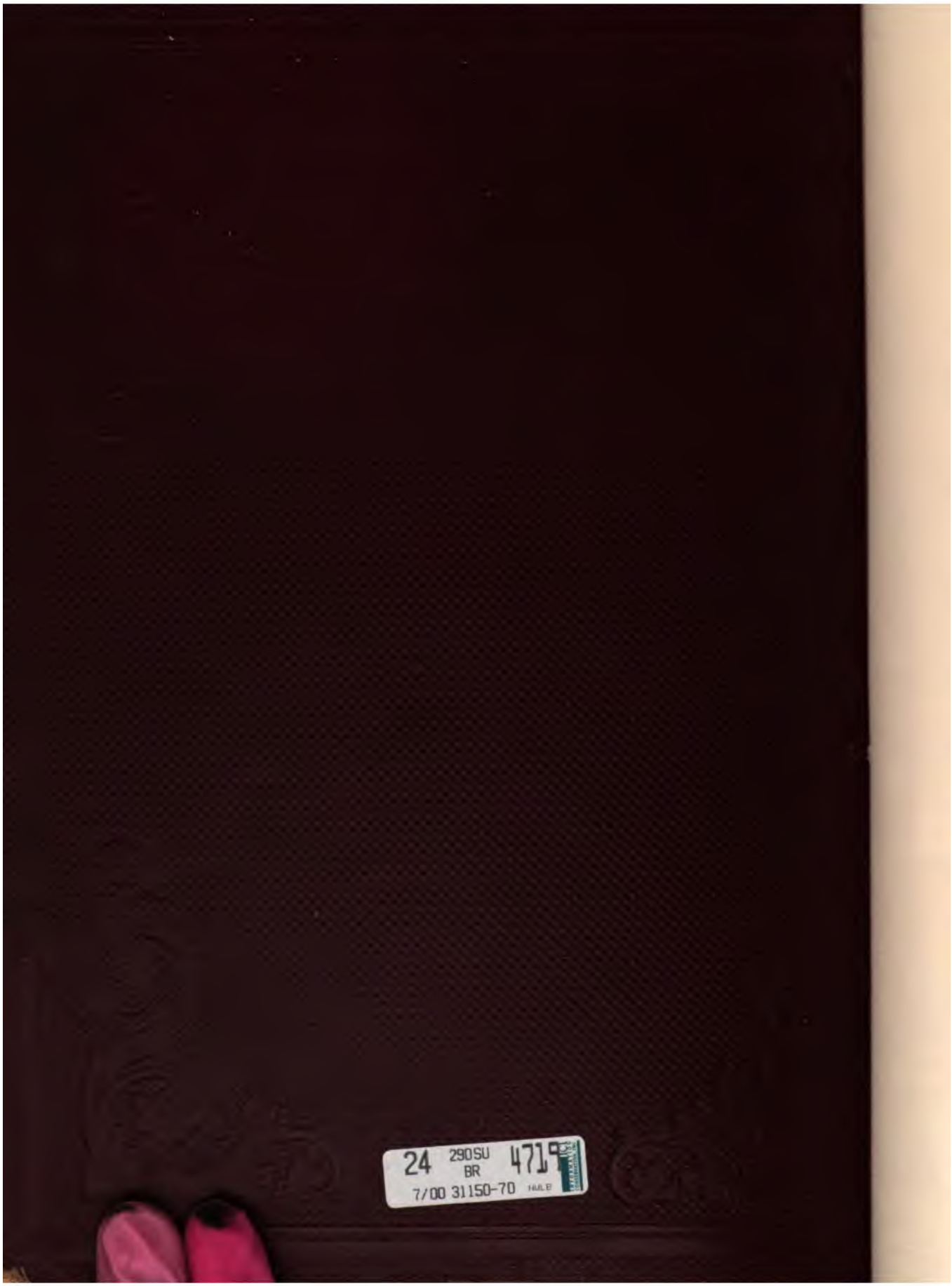




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